





Lincoln-Omaha Intercity Bus Feasibility Study

Prepared For:
Nebraska Department of Transportation, Public Transit
1400 Nebraska Highway 2
Lincoln, Nebraska 68502

May 2020













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Final Report

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Prepared by:

Mobility Management Team



















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1. Introduction

As part of the continuation of the Nebraska Mobility Management program, the Nebraska Department of Transportation (NDOT) tasked the Mobility Management Team to conduct a feasibility study of intercity bus service between Lincoln and Omaha. One goal of the study was to have extensive public engagement throughout the corridor and determine the needs of the community. Travel between Lincoln and Omaha has been studied for over 40 years, as evidenced by one key stakeholder from the community who brought a study from 1973 about travel patterns between the communities.

NDOT recognizes the need for increased mobility options for residents and visitors in the corridor due to the limited intercity bus service provided today. Lincoln and Omaha are the two most populated urban areas in the state, with several small rural communities in between, accounting for approximately half of the state's population. The purpose of the feasibility study is to provide detailed information regarding existing travel patterns, examine peer communities with intercity bus services, identify costs, and recommend routing for future bus service.

The NDOT public involvement activities conducted during the study process engaged key stakeholders within each community along the corridor, including elected officials, local staff, major businesses, community residents, and many others. Three rounds of public open house meetings, community and employment surveys, and key stakeholder meetings provided valuable input. It is estimated over 500 participants were contacted for each round of engagement throughout the study process. Over 85 percent of community survey responses felt intercity bus service would be valuable for their community.



COMMUNITY FEEDBACK

'We want the bus to come here for both employees and visitors - economic growth for this corridor' – SAC Museum Director / Mahoney State Park Game and Parks Director.

'I can work, sleep, read, or relax while on the bus with the Wi-Fi!' – Omaha resident and State Employee commuting to Lincoln for 18 years.

'When will it begin?' University of Nebraska Omaha (UNO) Professor commuting daily from Lincoln to Omaha for evening classes.







1.1 Project Study Area

The project study area for this feasibility study includes the metropolitan areas of Lincoln and Omaha, in addition to Waverly, Greenwood, Ashland, and Gretna. Chapter 2 of this report provides additional detail of the travel markets who will be drawn to the intercity bus service.

1.2 Study Impacts

The federal deregulation aftermath of the intercity bus industry has impacted Nebraska for over two decades, with significant loss of intercity bus service across the state. Connections to the rural communities between Lincoln and Omaha do not exist today.

Potential benefits of the intercity bus service for community residents served along the corridor, include employment opportunities, economic development, education, and health benefits, among others. Public transit's many benefits are related to increased connectivity achieved through linking communities by means of intercity bus service.

- Employment Benefits. Lincoln and Omaha are the most concentrated labor markets in the state. The intercity bus service can increase employee participation and can raise the region's connectivity to the statewide economy.
- Educational Benefits. Rural communities between Lincoln and Omaha display lower median incomes than the urban areas. There is strong evidence in academic and community-based research showing increased levels of education leads to higher incomes. Intercity bus services can facilitate access to higher education opportunities in the urban areas by lowering the transportation costs to access those resources. This can have an added benefit of increasing salaries and employment opportunities in the rural communities.
- Health Benefits. The communities between Lincoln and Omaha are relatively small and rural in nature, with limited medical







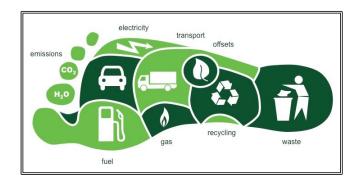






infrastructure needed to serve their elderly and disabled populations. The intercity bus service provides a public transportation option to travel to metropolitan areas for a range of health-related benefits that may not be available in the local community.

 Greenhouse Gas Emissions Benefits. Private vehicles are generally a household's largest carbon footprint



contributor. Public transit and intercity transportation reduce greenhouse gas emissions by providing an alternative to single-occupancy vehicle travel. Thereby, intercity bus transportation can reduce the number of vehicles on the road, as buses can carry up to 55 passengers. According to the American Public Transportation Association, a single person commuting 20 miles per day can reduce their greenhouse gas emissions by 4,800 pounds per year by taking public transit. The benefits of longer distances, such as the Lincoln to Omaha corridor, are even larger.

- Occasional Business Traveler Efficiency Benefits. Intercity bus service benefits travelers by
 providing a transportation experience where the traveler can relax, enjoy the scenery, or work.
 However, this analysis examines community benefits, focusing on cost and congestion benefits.
 Intercity transportation alleviates traffic and parking congestion in the destination city by reducing
 the number of vehicles on the roads during peak travel hours.
- Economic Development Benefits. Investments in public transit stimulate economic activity along
 transit corridors, as the route provides increased access to communities not served by an intercity
 transit provider. Secondary economic benefits include residents receiving better employment
 opportunities by being better able to access larger metro areas, as increased wages are most likely

going to be spent locally. If students are able to attend college, then those students' increased skills can facilitate innovation and growth at the local level. Lastly, if communities are able to stay healthy (through improved access to medical care), they will have more income and a greater ability to frequent local businesses.

1.3 Coordination with Other Studies/Plans

The idea of express bus service between Lincoln and Omaha is not new. At one time, passenger rail offered frequent service between these cities, as did private intercity bus companies. Only after these privately provided services disappeared did public planning efforts begin to address the need for transportation alternatives in this corridor.







1.3.1 Nebraska Transit Corridors Study

The 2003 Nebraska Transit Corridors Study¹ (also known as the NTRAC study) examined travel patterns between Nebraska cities, developed ridership forecasts for rail and bus intercity and commuter services in three corridors deemed most likely to support such services: Lincoln-Omaha, Fremont-Omaha, and Blair-Omaha. The study focused on work trips. Operating and capital cost estimates were developed for a range of rail and bus alternatives for several corridors in the eastern half of the state, including a number of intercity bus corridors.



Several scenarios were developed for both commuter rail and express bus. The scenario involving a commuter bus service between Lincoln and Omaha with half-hour service in the peak, and 14 weekday trips, showed the highest benefit-cost ratio. Annual ridership was estimated to be 56,000 to 81,000 trips in 2010 ², with an estimated operating subsidy requirement for Lincoln and Omaha commuter bus service of \$198,000 to \$270,000 per year and startup capital for vehicles and fare collection equipment of just over \$3,000,000. The scenario that included the same level of service between Lincoln and Omaha, with additional service from Fremont to Omaha and Blair to Omaha followed in terms of productivity potential.

1.3.2 Nebraska Intercity Bus Concept Plan

As part of Phase II of NDOT's Statewide Mobility Management Project, a statewide Nebraska Intercity Bus Concept Plan³ was developed. This plan included an inventory of the existing services, an examination of unmet needs, a review of the state's Section 5311(f) program of assistance for rural intercity bus service, and recommendations for next steps to address unmet needs and gaps in the network.

The study noted the limited service between the state's two largest cities, Lincoln and Omaha, referenced the earlier NTRAC study, and called for a new look at express bus service in this corridor to determine the feasibility of enhanced intercity bus service in this corridor, building upon the NE-Ride service operated by the University of Nebraska's School of Engineering, providing transportation for faculty, staff, and students between the University's two engineering campuses. The recommended study was intended to update demand and costs, define park

³ Statewide Mobility Management Project: Intercity Bus Concept Plan, Technical Memorandum, September 30, 2016, prepared by the KFH Group, Inc. for the Nebraska Department of Roads.



Wilbur Smith Associates and HWS Consulting Group, <u>Nebraska Transit Corridors Study</u>, <u>Commuter Rail and Express Bus Options Evaluation</u>, <u>Final Report</u>, prepared for the Nebraska Transit and Rail Advisory Committee, assisted by the Nebraska Department of Roads, December 2003.

² <u>Ibid</u>., pp. 6-10 and 6-11.



and ride needs, develop a preferred service alternative and present potential funding models. That recommendation led directly to this study.

1.3.3 Close the Gap: Heartland 2050

In addition, two more recent studies were completed and make the case for improved transit in Nebraska. One is the 2017 <u>Close the Gap Plan</u>⁴ developed as part of the Heartland 2050 planning initiative coordinated by the Omaha-Council Bluffs Metropolitan Area Planning Agency (MAPA). This plan, developed during the implementation phase following significant public input in the development of a vision for the Omaha-Council Bluffs region, included a white paper making the case for the development of a network of premium high-capacity transit corridors for Omaha and Council Bluffs. While the study itself did not address the need for a connection to Lincoln (or other cities outside the Omaha-Council Bluffs area), the proposed network of corridors provides a framework for consideration of the key destinations and potential routing for a regional service linking the two cities.

1.3.4 Blueprint Nebraska

More recently the statewide Blueprint Nebraska visioning process issued a call to:

"Make Lincoln and Omaha national models for next-generation public transit for mid-sized cities. The Lincoln and Omaha business, civic, and government leaders will create a roadmap for efficient, low-cost, innovative transit that taps the best new technologies for electric, autonomous, and connected vehicles. These metro areas (and others) will pilot all-electric, bus-based rapid transit with dedicated lanes; driverless shuttles; shared electric car fleets; and other innovations now in testing, but not yet implemented at large scale, in other cities". ⁵

While it does not specifically address transit needs connecting Lincoln and Omaha, it does set the stage for consideration of new transit services in this region - although the focus on new technologies may need to follow on the development of new services as the technology matures.

1.3.5 Conclusions

Frequent bus service between Lincoln and Omaha is not new and has been considered both in the context of potential future commuter rail and as part of a statewide intercity bus network. In either context the need to link the state's two largest cities with more frequent service capable of addressing multiple trip purposes has been identified as an unmet need. More recently, statewide and regional visioning studies have called for Nebraska to develop its public transportation options and become a leader in transit for mid-size cities. The next chapter will consider the potential market for service between Lincoln and Omaha.



Close the Gap: Analysis of Potential Transportation Corridors in the Omaha-Council Bluffs Metro Area, Heartland 2050 White Paper Task Force, July 2017



⁵ Growing the Good Life: Blueprint Nebraska Final Report, July 2019, p.30



2. Community Profile

The potential market for improved regional bus service between Lincoln and Omaha is evident when examining the demographic characteristics of the region. Combined, these two urbanized areas make up nearly half of the state's population. They are growing in population and are projected to grow more in the future, with expanding geographic footprints for both Lincoln and Omaha. And most significantly, there is already significant travel between them for work trips, and this travel is bi-directional with residents of each city commuting to the other.

2.1 Size of the Market

Together, the Lincoln and Omaha Urbanized Areas represent over 50 percent of Nebraska's population, based on 2010 U.S. Census, as can be seen in Figure 1. The Census Bureau defines Urbanized Areas (and Nonurbanized or Rural Areas) based on the full decennial Census, rather than the rolling samples of the American Community Survey. Urbanized Areas include the central core city and adjacent areas based on commuting patterns and are used by the U.S. Department of Transportation as a basis for funding programs.

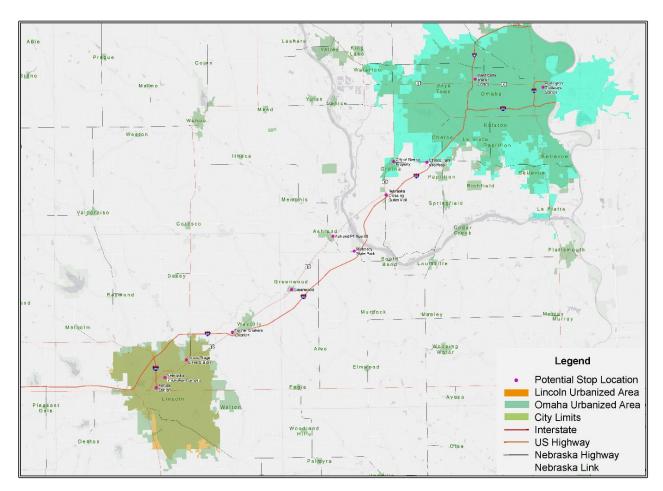


Figure 1. Lincoln and Omaha Urbanized Area 2010

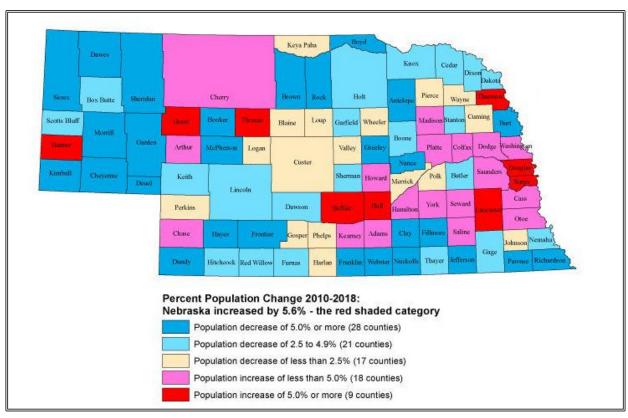




The Omaha-Council Bluffs Urbanized Area 2010 population is 725,008, of which 656,462 are in the Nebraska. The 2010 Lincoln Urbanized Area population is 258,719. The combined Nebraska populations of the two Urbanized Areas is 915,181, which is 50.1 percent of the state's 2010 population of 1,826,341. In addition, population in the rural areas between the two Urbanized Areas includes 3,133 persons in Waverly, 567 in Greenwood, and 2,631 persons in Ashland.

2.2 Project Growth

This area is also projected to have significant population growth going forward. The City of Lincoln grew by 11.2 percent, from 258,379 to 287,401 persons. The City of Omaha grew from 408,958 persons to 468,262 between 2010 and 2018, an increase of 14.5 percent. These urban areas and counties have also been the location for much of the state's population growth over this same period, as can be seen in Figure 2.



Source: 2018 Vintage Population Estimates, U.W. Census Bureau

Prepared by: David Drozd, Center for Public Affairs Research, University of Nebraska at Omaha - April 16, 2019

Figure 2. Percentage Change in Population for Nebraska Counties: 2010-2018

Much additional growth is projected to take place in the future. Population projections at the county level indicate the populations of the counties encompassing these Urbanized Areas and much of the surrounding rural area are going to increase from 961,357 persons to over a 1.5 million (1,509,979) by 2050.





Table 1. Nebraska County Projecti

	2010	2015	2020	2025	2030	2035	2040	2045	2050
Lancaster	285,407	302,423	320,528	340,761	361,534	383,301	406,126	430,021	455,703
Douglas	517,110	544,083	571,311	598,220	625,173	652,243	680,008	708,163	736,658
Sarpy	158,840	177,697	196,701	214,981	233,688	253,625	274,837	296,460	317,618
Totals	961,357	1,024,203	1,088,540	1,153,962	1,220,395	1,289,169	1,360,971	1,434,644	1,509,979

Source: December 2015 Nebraska County Projections, Center for Public Affairs Research, UNO

2.3 Travel Demand - Bi-Directional Travel

As one might expect, considerable travel exists today between the two largest population centers in the state, which are located only 59 miles apart. The U.S. Census collects data on the location and employment of households in its Longitudinal Employment Household Dynamics (LEHD) data. Looking at the 2017 data reveals over 23,000 daily commuters in this corridor, including the Lincoln Metropolitan Statistical Area (MSA), the Omaha MSA, and the intermediate towns of Waverly, Greenwood and Ashland. See Figure 3.

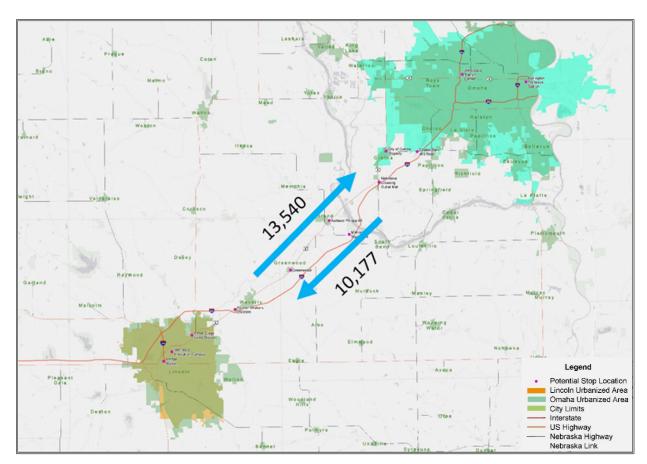


Figure 3. 2017 US Census, On the Map Application and LEHD OD Employment Data





The other significant aspect of this strong demand is that it is bi-directional. From Lincoln, 13,540 residents commute to the Omaha MSA for work, and from Omaha, 10,177 commutes to Lincoln. This contrasts with many commuter markets which link a predominantly residential area with work destinations, resulting in a single one-way market. These numbers would actually result in twice as many trips, as each resident needs to go to work and return. The other factor to note is these are only work trips, and there is likely substantial additional demand for other trip purposes, such as social and recreational activities, educational, shopping, or medical trips.

2.4 Conclusions

An examination of the demographic and travel pattern context suggests there is potential for a feasible bus connection between Lincoln and Omaha. The trip distance, the large number of work trips, the bi-directional nature of the commute pattern, the overall size of the market and its recent and projected growth, all support a significant amount of transit service connecting Omaha and Lincoln.





3. Existing Transportation

3.1 Local Transit Providers

3.1.1 StarTran

StarTran is the public transportation provider in the City of Lincoln, owned and operated by the City of Lincoln's Public Works and Utilities Department. It operates 18 regular fixed-routes and a downtown circulator service and provides Handi-Van complementary paratransit service to meet its obligations under the Americans with Disabilities Act (ADA). In addition to the public transportation routes, StarTran operates Big Red Express shuttle services from park and ride locations to Husker home football games. Four of the

routes (22, 23, 24, and 25) provide service to University of Nebraska Lincoln (UNL) linking the main campus, East Campus, and Innovation Campus. There are 67 full-size transit coaches and 13 cutaway buses in the fleet. Service hours are from 5:40 a.m. to 9:50 p.m. on weekdays, with the university routes operated weekdays from 6:50 a.m. to 9:00 p.m. when UNL is in session. Saturday hours differ, and there is no Sunday service.

Routes are limited to the City of Lincoln, and all but the UNL routes connect at the corner of 11th and N Streets in downtown Lincoln, on two sides of the former Gold's department store building. A secondary downtown transfer point is located at the corner of 14th and M Streets on two sides of the State Office Building. The four UNL routes do not connect downtown, but at several points on campus, including R Street in front of the Nebraska Union, on Vine Street at Henzlik Hall, N. 23rd Street at Vine Street on East Campus, and at Innovation Campus.





At the time of writing, StarTran is conducting a Multimodal Transit Transfer Center (MTTC) Feasibility and Conceptual Design Study to explore transfer improvements for the fixed-route system. The existing street side stops on 11th and N Streets at Gold's have limited capacity and few amenities. There is no capacity for additional routes at these locations if any layover time is needed. The facility needs identified in the study include bays for intercity services, but it is likely to be several years before a final permanent site is chosen and constructed. There is a downtown Trolley shuttle linking the Gold's site with the State Capitol, State Office Building, Haymarket, and UNL City Campus. The Trolley operates from 6:15 a.m. until 8:44 p.m. and has a fare of \$0.25.

The system base cash fare is \$1.75 with free transfers, and there are a variety of passes. As mentioned, the Trolley fare is \$0.25, and there is a \$0.25 fare zone downtown on all routes. Fares can be purchased via Smartphone on Token Transit. UNL students, staff, and faculty with a current UNL Bus Pass (obtained through the University) and UNL identification ride free on all routes.

The 2016 Lincoln Transit Development Plan-Final Report included information from a user survey. It revealed roughly half of the respondents did not have access to a vehicle and were dependent on transit





service. Despite the high university ridership, the survey found more than a third of riders were in the 45 to 64 age group, with the 18 to 29 age group making up 28 percent of the surveyed riders. Many riders have low incomes, with half the riders having an annual income below \$20,000 and only 15 percent with an income of \$45,000 or more. Many riders are frequent users, taking 10 or more trips per week. Almost half of those surveyed were traveling to work, with school, errands and shopping making up lower percentages of the trip purposes. The TDP also found nearly a third of trips require a transfer.

3.1.2 Omaha Metro

Metro is Omaha's public transportation system. Metro is an independent transit authority organized under state enabling legislation that also provides it the authority to levy local taxes in the City. The Authority has a five-member board appointed by the Mayor and approved by Omaha's City Council and the Douglas County Commissioners. Metro is responsible for the operation of fixed route, express/commuter bus





downtown weekday rush hour and Americans with Disabilities Act Complementary Paratransit Service (branded as MOBY) within the city limits of Omaha, Nebraska. It also has turn-key contracts with five adjacent jurisdictions for operation of transit services including Ralston, LaVista, Bellevue, Papillion (all in Nebraska); and the City of Council Bluffs in Iowa.

The fixed-route network currently has 27 routes, including one circulator, one route in Council Bluffs, and seven weekday express routes (the 90's series routes) serving park and ride lots in the contract service areas. The Green Circulator serves the downtown on weekdays, providing a large loop from Dodge Street north to the Creighton University area. Metro markets services providing access to the College World Series, many of which are the routes that serve the stadium area.

In 2015, the service underwent a major system redesign called the FORWARD plan, designed to focus resources on a limited number of high-frequency routes with extended service hours. These routes are linked with less-frequent routes at six different transfer centers. In addition, in the fall of 2020 Metro is

scheduled to open Omaha Rapid Bus Transit (ORBT), a bus rapid transit line linking the Westroads Transit Center with downtown via Dodge Street, replacing the current Route 2. ORBT features limited stops at key locations, high-frequency (every 15 minutes), a long span, limited stops, off-board fare payment, and level boarding at all doors.

The base cash fare is \$1.25 local/\$1.50 express, with a \$0.25 transfer fee. Ten-ride tickets and thirty-day passes are also available. The Green Circulator fare is \$0.25. While there are several locations for purchasing tickets, Metro is in the process of procuring a mobile ticketing







system which would allow users to pay via cellphone. Metro also coordinates with local high school and colleges for discounted fares.

3.2 Intercity Services

There are existing intercity services for travel between Lincoln and Omaha. Four different companies currently provide service connecting these cities. All these services are provided as part of longer distance services. The schedules for each carrier are as follows:

- Burlington Trailways:
 - ➤ Depart Lincoln 4:40 a.m., Arrive Omaha 5:40 a.m. (bus from Denver)
 - Depart Omaha 9:15 p.m., Arrive Lincoln 10:15 p.m. (bus continues to Denver)
- Express Arrow
 - ➤ Depart Omaha 8:15 a.m., Arrive Lincoln 9:15 a.m. (bus continues to Denver)
 - ➤ Depart Lincoln 6:55 p.m., Arrive Omaha 7:55 p.m. (bus from Denver)
- Navigator Express (no Sunday service)
 - ➤ Depart Lincoln 11:10 a.m., Arrive Omaha Eppley Airport 12:25 p.m. (bus from Kearney)
 - ➤ Depart Omaha Eppley Airport 2:00 p.m., Arrive Lincoln 3:15 p.m. (bus continues to Kearney)
- Windstar/Megabus
 - ➤ Depart Lincoln 11:00 a.m., Arrive Omaha 12:05 p.m. (bus continues to Chicago)
 - ➤ Depart Omaha 7:55 p.m., Arrive Lincoln 9:00 p.m. (bus from Chicago)

All services except the Navigator buses are provided daily. Navigator does not operate on Sundays.

There are several different station/stop locations for the different carriers. In Lincoln, Express Arrow and Burlington Trailways services both operate out of Express Arrow Bus Depot at 5250 Superior Street, Lincoln, NE 68504. Their services operate non-stop to the intercity bus station in Omaha, currently located at the Interline Bus Terminal, 1601 Jackson Street, Omaha, NE 68102. In the near future, this station will be closed, and the intercity bus services will operate out of the Omaha Amtrak Station at 1003 South 9th Street, Omaha, NE 68108.

In Omaha, Express Arrow and Burlington Trailways services connect with other intercity bus services operated by Express Arrow (to/from Norfolk), Burlington Trailways (to/from Chicago), and Jefferson Lines (to/from Kansas City and Sioux Falls, South Dakota).

- Burlington Trailways: Omaha-Chicago
 - Depart Omaha 6:15 a.m., 12:10 p.m., or 8:45 p.m.
 - Arrive Omaha 1:30 a.m., 4:05 p.m., or 8:20 p.m.
- Express Arrow: Omaha-Norfolk
 - Depart Omaha 8:45 a.m., Eppley 9:00 a.m., Arrive Norfolk 11:30 a.m.
 - Depart Norfolk 12:05 p.m., Arrive Eppley 2:35 p.m., Arrive Omaha 2:50 p.m.
- Jefferson Lines:
 - Depart Omaha 6:15 a.m. or 4:25 p.m.
 - Arrive Omaha 4:00 p.m. or 11:25 p.m.















Windstar/Megabus operates its Lincoln-Omaha-Chicago service to/from the Lincoln Amtrak station at 277 Pinnacle Arena Drive, Lincoln, NE 68508 in the Haymarket district. In Omaha, the stop is located at Crossroads Mall on N 72nd St. between Dodge St and Cass St. Navigator Express operates to/from the Lincoln Ramada Inn on Exit 399 or Travel Lodge Airport (reservations required), with its only Omaha stop at Eppley Airport.

Not only are the stop locations widely dispersed, so are the ticketing and information systems. Each carrier has its own website and ticketing system, though Express Arrow and Burlington Trailways are both members of the National Bus Traffic Association (NBTA), which is the interline ticketing system that facilitates purchase of tickets that are usable on connecting carriers. Passengers can also search schedules on these carriers and purchase tickets through Greyhound. Windstar operates its own website, but information and ticketing on its Lincoln-Omaha-Chicago service is done through Megabus, which is not part of the NBTA. Navigator sells its own tickets - information about its services is only available through its own website.

3.2.1 Amtrak

Amtrak intercity rail passenger operates service between Lincoln and Omaha. The California Zephyr makes a single daily round-trip between these cities on its route between Chicago and Emeryville, California (San Francisco). Westbound, the train leaves the Omaha Amtrak station at 11:05 p.m., arriving in Lincoln's Amtrak Station at 12:08 a.m. Going eastbound it leaves Lincoln at 3:26 a.m., arriving in Omaha at 4:59 a.m.

3.2.2 Omalink

Omalink is a private company offering pre-scheduled demand-response service between the Lincoln area and Eppley Airport (as well as Omaha to Eppley). Omalink will pick up at any home, office, or hotel address in Lincoln. Advance reservations are required by 3:00 p.m. the day before travel.





3.3 University Services

In addition to the intercity bus and rail services open to the public, the University of Nebraska's College of Engineering operates NE-Ride, a service connecting the Lincoln campus to the Peter Kiewit Institute (PKI) at the circle drive at the main entrance of PKI and the University of Nebraska Medical Center (UNMC) at Emile Street, between 41st and 42nd Streets in Omaha. The pickup point in Lincoln is Othmer Hall (Vine Street between 16th and 17th streets), and upon request, the shuttle will make a stop at Exit 439 on I-80, the Chalco Road Park and Ride lot. Six daily round-trips are provided.

The service is open to students, faculty, staff, and alumni. Seating is available on a first-come, first-served basis, with priority to those with a key ring tag, which is only available to engineering school students, faculty, and staff. Priority is only given to those boarding at Othmer Hall in Lincoln and PKI. Two 36-passenger buses are used for the service, operated by Arrow Stage Lines (parent of Express Arrow) under contract to the University. The buses are equipped with wheelchair lifts. Tables 2 and 3 show the NE-Ride's Spring 2020 schedule.













Table 2. University of Nebraska Lincoln to Omaha Spring 2020 Schedule

Leave Othmer	Arrive PKI	Leave PKI	Arrive UNMC
7:30 a.m.	8:40 a.m.	8:50 a.m.	9:00 a.m.
9:30 a.m.	10:30 a.m.	10:50 a.m.	11:00 a.m.
11:30 a.m.	12:30 p.m.	12:50 p.m.	1:00 p.m.
1:30 p.m.	2:30 p.m.	2:50 p.m.	3:00 p.m.
3:30 p.m.	4:30 p.m.	4:50 p.m.	5:00 p.m.
5:30 p.m.	6:40 p.m.	N/A	N/A

Lincoln shuttle will stop at exit 439 by rider request to the van driver.

Table 3. University of Nebraska Omaha to Lincoln Spring 2020 Schedule

Leave UNMC	Arrive PKI	Leave PKI	Arrive Othmer	
N/A	N/A	7:30 a.m.	8:40 a.m.	
	* Exit 439 picku	p at 7:50 a.m.		
9:05 a.m.	9:15 a.m.	9:30 a.m.	10:30 a.m.	
* Exit 439 pickup at 9:50 a.m.				
11:05 a.m. 11:15 a.m.		11:30 a.m.	12:30 p.m.	
* Exit 439 pickup at 11:50 a.m.				
1:05 p.m.	1:15 p.m.	1:30 p.m.	2:30 p.m.	
3:05 p.m.	3:15 p.m.	3:30 p.m.	4:30 p.m.	
5:05 p.m.	5:05 p.m. 5:15 p.m.		6:40 p.m.	

^{*} To request other exit 439 pickup times, call the transit office.

3.4 Rideshare

3.4.1 Metro Rideshare

Omaha's MAPA offers Metro Rideshare, which is a free software program designed to connect people in the Omaha-Council Bluffs region who are interested in ridesharing. The software program uses information on trip origin, destination, and schedule to match potential users.

3.4.2 Nebraska Department of Transportation Statewide Vanpool Program

The NDOT Transit Section has a statewide vanpool program operated and contracted by Enterprise Rideshare. The program provides matching services to create a group of commuters who share the ride in a van supplied by the program under lease. The van is driven by one of the commuters in the group. Enterprise Rideshare provides the vans, which are equipped with Wi-Fi and satellite radio. The program





provides 24-hour roadside assistance, liability insurance, and scheduled maintenance. The program also provides a guaranteed ride-home program in case a rider needs to return home at a time other than their scheduled vanpool trip. Typically, the cost to operate a vanpool (fuel, lease, maintenance, insurance) is split among the riders; however, in Nebraska, the NDOT program also provides a cost-reduction through a \$400 per month subsidy per vanpool. The NDOT program is statewide, open to commuters in both rural and urban areas. There are vanpools operating in the Lincoln and Omaha commute market.

3.5 Park and Ride

Nebraska has no official statewide park and ride lot program, so no existing formal NDOT-provided, public park and ride lots are located in the project corridor.

In Lincoln, there is a privately provided park and ride lot at the U-Stop Convenience Shop at 84th Street and Cornhusker Highway (U.S. Highway 6). This location does not currently have any transit service. StarTran also has several lots it uses as park and ride locations for its Big Red Express home football game day service.

In the Omaha area, there is a public park and ride lot on the south side of Route 370 at Exit 439, known as the Chalco Road lot. It sees limited usage but has lighting and a port-apotty. The NE-Ride College of Engineering Shuttle will stop at the Chalco Road lot on request. There are also 14 park and ride lots served by Metro on its Express routes, as shown in Figure 4.

The City of La Vista owns a portion of the parking lot at Cabela's, Exit 442, off I-80. The City expressed interest in hosting a park and ride lot for the new intercity service. They are interested in connecting passengers to potential shopping and employment. The existing parking area is not currently marketed as a park and ride lot.

BIG RED EXPRESS

Ride to and from all UNL Husker home football games from any of these six lots:



Municipal Service Center (I-80 Airport Exit #399) NW 12th & W Bond (turn right just past McDonalds)



Southeast Community College 88th & "O" Street



Holmes Lake 70th & Normal



Gateway Mall
61st & "O" Street
(southeast parking area at Sears)



SouthPointe Pavilions
27th and Pine Lake Road



North Star High School (I-80 Exit #403) 5801 N. 33rd Street (6 blocks east of North 27th & Folkways)





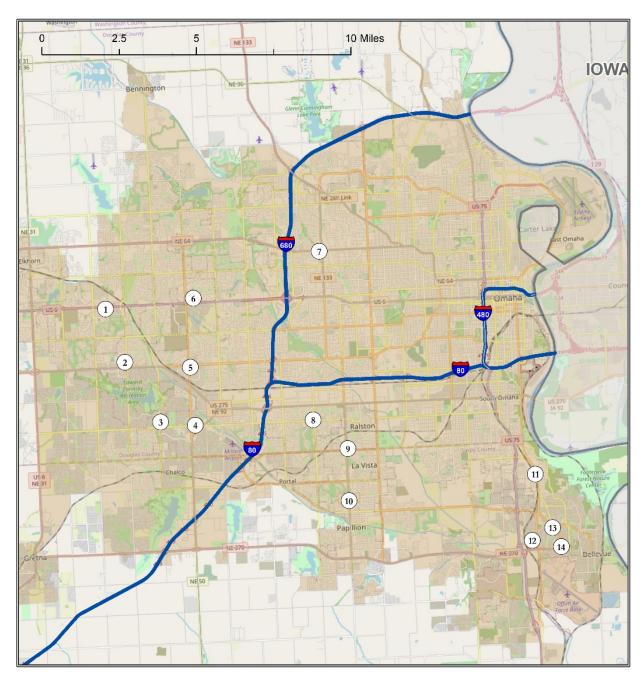


Figure 4. Omaha Metro Park and Ride Lot Locations





Table 4. Omaha Metro Park and Ride	LOT	Locations
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Map No	Name	Address or Location
1	Village Pointe	17404 Burke St, Omaha, NE 68118
2	Lakeside Hospital	16909 Lakeside Hills Ct, Omaha, NE 68130
3	153rd & Weir	153rd & Weir NW, Omaha, NE 68137
4	Boulder Creek	14208 S St, Omaha, NE 68137
5	Oakview Mall	3001 S 144th St, Omaha, NE 68144
6	First National Bank	14010 FNB Parkway, Omaha, NE, 68154
7	Family Fare Supermarket (Omaha)	2650 N 90th St, Omaha, NE 68134
8	St. Gerald's Catholic Church	9602 Q St, Ralston, NE 68127
9	CVS Pharmacy LaVista	6901 S 84th St, La Vista, NE 68128
10	Washington & Tara Plaza	703 Tara Plaza, Papillion, NE 68046
11	Marathon Ventures	915 Fort Crook Rd N, Bellevue, NE 68005
12	Lied Activity Center	2700 Arboretum Dr, Bellevue, NE 68005
13	Bellevue University	1103 Galvin Rd S, Bellevue, NE 68005
14	Harlan Drive	1314 Harlan Dr, Bellevue, NE 68005

3.6 Bike/Trail Connections

It is important to understand each cities' existing bicycle and trail infrastructure and how the intercity bus service is a potential link for passengers to use the services. Biking and walking are a great example of tying into the existing trail system within the city. Additionally, the trails are an opportunity for a resident of the other communities to bring their bicycle and once disembarking, ride or walk to destinations within the city or the inverse: one will be able to use their bicycle or walk to the route stops using these trails. A list of the trails intersected or within a short distance of the service stops include:



Heartland of America Park, Omaha, NE





Omaha⁶

- Keystone Trail
- Field Club Trail
- Turner Blvd/N 30 Trail
- Heartland of America Park
- Riverfront Park Trail
- Elmwood Park/Happy Hollow Blvd Trail
- Chalco Hills Park Trail/Proposed MoPac Trail
 Connection

Lincoln:7

- Superior Street Trail
- Billy Wolff Trailhead
- John Dietrich Bikeway
- Local Bicycle network
- On street bike lanes



Billy Wolff Trailhead, Lincoln, NE

3.7 Bike Share

Integrating future intercity bus services with the current bike share infrastructure is a great multimodal opportunity for passengers. This opens mobility options to those who may not own (or choose not to own) a bike or personal vehicle.

Understanding where the station locations are in relation to the service stops is key to ease of use. The locations of stations in Lincoln are concentrated in the downtown area. Both the Gold's building and the UNL Student Union have established stations while the State Capitol has a network surrounding it. In Omaha, the established bike share stations are in Aksarben Village, UNO, Midtown, and Downtown. The ORBT line will also have bike share stations at most stops, furthering mobility options.



Bike Share Downtown Lincoln, NE

DOGIS - Trail layer (dogis.org)

City of Omaha Parks – Paths of Discovery metro Area Trail Systems Map (https://parks.cityofomaha.org/parks/paths-of-discovery-metro-area-trail-map)

⁷ Lincoln:

Bike Lincoln-City of Lincoln, Great Plains Trails Network – Lincoln and Lancaster county Trails Map and Resources 2014 (file:///C:/Users/ksalerno/Downloads/GPTN_TrailsMap_blue_0040314.pdf)

https://www.gptn.org/the_trails/overview.html



⁶ Omaha:



4. Intercity Bus Peer Services

Chapter 4 provides a host of information regarding peer intercity transit services for the Lincoln to Omaha corridor. Peer communities were identified based on project team experience and other Midwest-based intercity bus services operating today.

4.1 I-380 Express - Cedar Rapids to Iowa City, Iowa



The I-380 Express was developed as a mitigation measure for I-380 reconstruction using federal congestion mitigation funding for the highway with a state DOT match. It is managed by East Iowa Council of Governments. The Express service entered the planning phase in 2016 and went out for RFP in mid-2018. Service began in October 2018.

The I-380 Express service operates weekdays, plus Saturday services during fall football season. The five stops include:

- · Cedar Rapids and Iowa City Transportation Centers,
- Kirkwood Community College Park and Ride Lot,
- · Coralville Intermodal Facility,
- University of Iowa Hospitals and Clinics,
- West Campus Transportation Center

The first run begins at 5:20 a.m. with service ending at 8:50 p.m. with half-hour frequency during peak hours, dropping to hourly between 8:50 a.m. and 2:50 p.m. One round trip takes one hour 50 minutes (125 percent of drive time). Fares are \$3.50/\$1.75 single rides with passes available. The fares and schedule align with the Megabus services.



The vehicles are new coaches with restrooms owned/leased by the contractor, Windstar Lines. Each bus has free Wi-Fi, USB Ports, and reclining seats. Three-point seatbelts, a wheelchair lift, and two securement areas are available on each coach. For payment, riders can use the onboard drop box for cash or the more heavily utilized Token Transit phone payment (used by 75-80 percent of riders). One of the major stops





includes University Hospital. In addition, significant transfers from local transit agencies occur at transportation centers. The University was involved in planning, oversight, and has a discounted transit pass program for students, staff, and employees.

The service began with a goal of 500 passenger trips per day for a mature service. Ridership during these initial startup period has climbed to approximately 250 trips per day with peaks of 300, creating a farebox recovery of about 10 percent. The system costs approximately \$90,000-\$100,000 per month. Approximately \$80,000-\$90,000 was spent for marketing in the first year of service.

4.2 KCATA, K-10 Connector, Kansas

The K-10 Connector is a bus service traveling between the City of Lawrence, KS and Johnson County, Kansas operated by RideKC The bus runs from the KU Campus in Lawrence to KU-Edwards Campus in Overland Park, with five stops along the route—three park and ride lots and three campuses. From end-to-end, the ride time is one hour 10 minutes to one hour 20 minutes. Monday through Friday, the bus runs 19 times a day (between 6:00 am and 6:00 pm), with extra two-night runs Monday-Thursday. K-



10 Connector service frequency decreases during the summer and school breaks. Bus fare is \$3.00 per one-way trip.

Much of the ridership consists of college and university students and professors, although some ridership is made of local commuters. In 2018, annual ridership was reported at just under 100,000 annual trips. Of these tips, a survey found that 78 percent were for school, 16 percent for work, and 6 percent for social/recreation/other.

4.3 New Mexico Department of Transportation Park and Ride Commuter Bus Network

In Northern New Mexico, six bus lines out of the New Mexico DOT Park and Ride network: Blue, Red, Orange, Green, Purple, and Turquoise (described below). The routes operate weekdays.







- The Turquoise route has six stops and runs once a day both westbound and eastbound between Moriarty and Albuquerque. The base fare is \$3.00 per one-way trip.
- The Purple route runs between Albuquerque, Santa Fe and Los Alamos with seven stops. The bus runs four times a day between Santa Fee and Los Alamos. The buses only run once at 3:55 a.m. From Albuquerque in the northbound direction. The base fare is \$3.00 per one-way trip, except from Albuquerque, which has a fare of \$6.00 one way.
- The Green route makes six stops in the westbound direction between Espanola and Los Alamos. The route has four stops in the eastbound direction between Espanola and Los Alamos. The base fare is \$2.00 per one-way trip.
- The Red route makes seven stops in both southbound and northbound directions between Espanola and Santa Fe.
- The Orange route makes seven stops between Las Vegas and Santa Fe, both southbound and northbound. The base fare is \$3.00 per one-way trip.
- The Blue route makes 10 stops between Santa Fe and Los Alamos in both northbound and southbound directions. The base fare is \$3.00 per one-way trip.

In Southern New Mexico, two routes operate park and ride services: Gold and Silver, described below.

- The Gold route runs between Las Cruces and El Paso with five stops.
- The Silver route runs between Las Cruces and White Sands Missile Range with 9 stops in the eastbound direction and 10 stops in the westbound direction.

Three local feeder routes operate for the Santa Fe NMDOT Park and Ride Shuttles:

- NM-599 Station Shuttle
- South Capitol Station Shuttle
- Purple Shuttle (northbound only).

In 2017, 115 buses departed daily on eight fixed routes and three shuttle routes with 247,100 passenger trips. The service is operated by a contractor to the New Mexico DOT, using a fleet of 24 fifty-seven passenger buses (including four spares).

In 2017, state funding was \$5.7 million, \$300,000 from federal funds, \$420,180 from El Paso County, \$116,077 from Rio Metro RTD, \$689,499 from fare revenues and \$11,150 from advertising revenue. In 2017, annual ridership was 247,100.

4.4 Smart Way and Smart Way Express, Virginia

Smart Way links Blacksburg, Virginia (Virginia Tech) with Christiansburg, Virginia and Roanoke, Virginia. The line runs



Smart Way service runs 16 times a day, Monday through Friday, 11 times Saturday, and twice on Sunday. Primarily a commuter service, it runs between 5:00 a.m. and 8:00 p.m., with some evening service. On two round trips, it connects to the Amtrak station from Roanoke to Blacksburg.





from the Virginia Tech Campus to downtown Roanoke, connecting with the Valley Metro local transit and Greyhound at the Campbell Court intermodal center. It also connects the Virginia Tech Main Campus in Blacksburg with the Virginia Tech Carilion School of Medicine and Research Institute on the Roanoke Campus. Other stops include the Hotel Roanoke, Roanoke Regional Airport, two park and ride lots, VT Corporate Research Center, Main Street in Blacksburg, and two stops on the main campus. End-to-end ride time is one hour, five minutes to two hours, five minutes depending on time of day and stops.

Currently, the Smart Way is funded through a combination of University, local, state, and federal funding, including (in the past) Section 5311(f). Annual ridership has varied between 66,000 and 81,000 between 2013 and 2017. Annual operating costs were approximately \$800,000 in FY 2017, using four coaches.

4.5 Northstar Link Commuter Bus, Minnesota

Northstar Link bus has four bus routes that connect to a commuter train to Minneapolis:

- Route 887
- Route 887F
- Route 887T
- Route 887V

The 887-bus service runs seven days a week, stopping eight times between St. Cloud, Becker, and Big Lake. End to end bus trip is one hour. During the week, the 887 meets every Northstar Commuter Rail train (10 roundtrips on the bus), while on the weekend, the Northstar Link meets the first and last train.

The 887F bus has midday service on Fridays at 1:00 p.m. northbound and 10:15 a.m. southbound between St. Cloud, Becker, Big Lake, Elk River, Ramsey, Anoka, Coon Rapids, and Ramp B/5th St Transit Center in Minneapolis. The two final routes 887T and 887V provide public transit for sporting games, Twins (baseball) and Vikings (football).







Northstar Link Commuter Bus is a service of the Northstar Corridor Development Authority (NCDA) [under contract], Sherburne County, and Stearns County and is operated by the Saint Cloud Metro Bus. The NCDA is a joint powers board made up of counties, regional railroad authorities, cities, and townships along the corridor. It provides funding for the bus service, while St. Cloud Metro Bus operates the buses. September 2016 ridership had a total of 5,024 people for all the lines and days of service. In that same time, the average total daily rides were approximately 170 passenger trips.

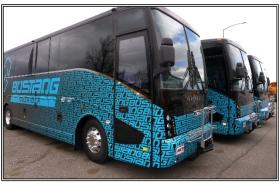
4.6 Bustang and Bustang Outrider, Colorado

Bustang is managed by the Colorado Department of Transportation (CDOT), who contracts with Ace Express Coaches to run the North, South, and West Lines. Bustang Outrider is operated under contracts with local providers. It is funded with federal Section 5311 funding and state transportation funding. CDOT owns and provides the buses to the contractors.

Bustang is a statewide brand, differentiating between Denver services, the Outrider brand is for lower frequency rural intercity services. It has a user-friendly website; a mobile app with information and ticketing; and a Trip Planner with Interactive Map functions. All are branded with the recognizable Bustang brand.

Bustang has four routes. North Line runs Fort Collins to Denver (nine daily roundtrips, 1:40 end-to end). The South Line is Colorado Springs to Denver (seven daily roundtrips, 2:05-2:30 end-to-end). The West Line is Grand Junction to Denver. This includes one round-trip from Grand Junction, one from Vail, and one from Glenwood Springs. Time for the bus is six hours for the Grand Junction trip, four hours from Glenwood, and two hours, 45 minutes from Vail. The final route is Colorado Springs to Denver Tech Center (two daily roundtrips, a little over two hours end-to-end).





Four Bustang Outrider routes are funded with Section 5311(f), state funds and in-kind match. They include Colorado Springs to Pueblo to Lamar; Alamosa to Pueblo Durango to Grand Junction; and Gunnison to Denver. Each route connects with and interlines tickets with both Amtrak and Greyhound. At park and rides, the service links to local transit routes. Ridership has exceeded expectations, particularly on key corridors.







5. Intercity Bus Vision

5.1 Statewide Vision

Intercity bus service is a vital link between rural communities and larger urban areas for services, employment, and connections to family and friends across the nation. As shown to the right, the *NDOT intercity bus vision is to develop a comprehensive statewide bus network* connecting rural communities to major activity centers in the regional and larger urban areas.

Current gaps in the national intercity bus network in Nebraska include connections to remote rural communities. Today, the national network focuses on large cities; however, in Nebraska, our largest cities, Lincoln and Omaha, have limited service available. The proposed future routes discussed within this report supplement existing services and continue to build the NDOT vision for a statewide bus network.

5.2 Lincoln to Omaha Intercity Bus Vision

The specific vision for intercity bus service for the Lincoln to Omaha corridor is to provide an efficient, valuable, and convenient service, with service levels similar to other peer communities with meaningful and convenient connections to the national network.

The goal of the Lincoln to Omaha service is to enhance the existing intercity bus network between

Lincoln and Omaha with additional trips and stops to serve the needs identified by the communities along the corridor, both urban and rural. In addition, raising awareness and usage of intercity bus services is a goal. During our public engagement process, it was expressed multiple times from attendees they did not know what services are available, where buses go, cost, or where the closest bus stops are located. Future NDOT intercity bus services will ensure an appropriate marketing campaign to raise awareness to residents and visitors of the services available.

A final goal for the Lincoln to Omaha service is to provide convenient bus stop infrastructure for passengers, including park and ride facilities, as well as appropriate amenities at designated locations. Connectivity with existing local bus providers, StarTran and Metro, is a key element of the Lincoln to Omaha service. Passengers must have options for connecting to final destinations which are simple, seamless, and affordable.

NDOT INTERCITY BUS VISION

The NDOT vision for intercity bus service is a comprehensive statewide bus network connecting rural communities to major activity centers in the regional and larger urban areas.





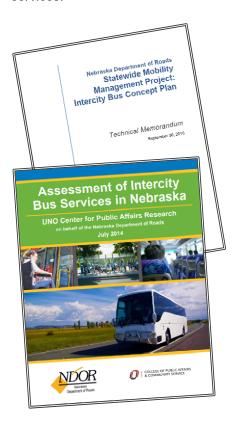


5.3 Building an Intercity Bus Network

NDOT began assessing intercity bus services over a decade ago, recognizing the major changes that occurred since the 1980s when the transportation modes were deregulated. Unfortunately, the markets did not trend as expected and intercity bus service has declined over time. Assisting in the decline of bus travel was an increase in car ownership, affordable airline carriers coming into the market, and affordable Amtrak passenger fares. The result of these factors were service route cuts and elimination of bus routes in many non-urban areas, including many areas in the state of Nebraska, through the early 2000s.



A game-changer occurred when Megabus entered the US market in 2006 with a focus on the major urban areas, traveling approximately 250 miles at low discounted fares. This new competition impacted Greyhound and Amtrak, who ultimately had to modify fares and alter the business model for intercity bus services.



The existing limited intercity bus services in Nebraska includes Megabus; however, little to no expansion has occurred in the rural areas of the state. One exception is in the Panhandle area (western Nebraska) of the state with one provider, Panhandle Trails, based out of Alliance, Nebraska. Currently, the agency provides weekday services to surrounding regional centers in the area, such as Chadron, Scottsbluff, and Sidney.

NDOT understands the importance of a statewide intercity bus network, as documented in 2014 with an assessment of intercity bus services within the state. The 2016 Statewide Mobility Intercity Bus Concept Plan also identified additional needs and corridors across the state. This Lincoln to Omaha report builds from the previous planning efforts, beginning implementation strategies for the Lincoln to Omaha corridor. Additional corridors are identified within the statewide report and will be future steps for the statewide intercity bus network. This vision includes not only the higher frequency services between the major population centers, but also longer-distance intercity routes connecting regions across the state.



⁸ https://dot.nebraska.gov/media/7029/intercity-bus-assessment-2014.pdf



6. Public Engagement

Public engagement was a critical component of the feasibility study process. Recognizing the importance of this project and future impacts for the two key cities and the communities in between, the project team's

goal was to cast a wide net of possible stakeholders and interested parties to share project information and provide feedback to inform the study, and ultimately the preferred.

6.1 Technical Committee

A technical committee was formed with representatives from each of the local communities, and many interest groups. The technical committee met monthly between August 2019 and March 2020. The committee included members in Lincoln, Omaha, Greenwood, Ashland, and Waverly representing:

- Transit and transportation providers
- State and local universities, and community colleges
- County and local elected officials and staff
- Major employers
- · Economic development
- Airport authorities
- Chambers of Commerce

6.2 Stakeholders

The project team engaged a stakeholder list of nearly 600 contacts within the study area representing:

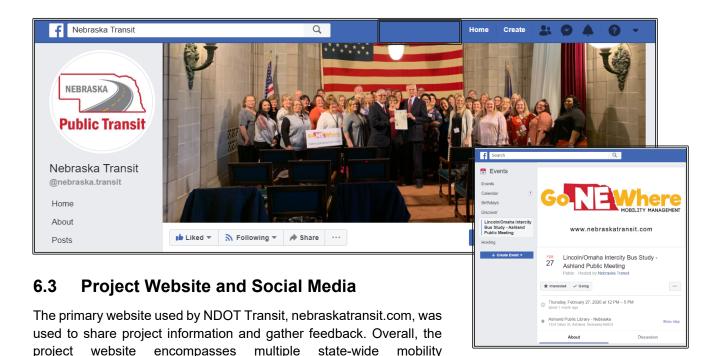
- Elected officials
- State and municipal staff
- Healthcare community
- Faith community
- Transit providers
- Transit riders
- · Other interest parties











of state-wide efforts, current active projects, and anticipated future projects. The project website was updated throughout the study with current information as the Lincoln and Omaha study progressed.

The Nebraska Transit Facebook page, facebook.com/nebraska.transit, was also utilized to share project information, online surveys, and public meeting information.

6.3.1 Online Surveys

Stakeholders and the public were sent several surveys before and after each round of public engagement. Both to determine what the community was looking for in terms of routing, stops, usage of the service and then to help refine potential stops.



6.3.1.1 Feasibility Survey

management projects, including those completed in previous phases

The first survey had a variety of questions asking the community what they would want to see in an intercity route such as amenities, route stops, and frequency. The survey received 185 responses. The following text provides an overview from the survey.

Would Intercity Public Transit Benefit Nebraskans?

The response to this question was overwhelmingly positive with over 90 percent responding 'yes' and 'conditional yes,' as shown in Figure 5. Stakeholders were also asked to discuss some of the challenges for this type of service. One of the primary challenges identified was last mile connections and making sure the bus would provide a connection to where they needed to be, whether that was a block from their jobsite or a bus connection away from shopping.





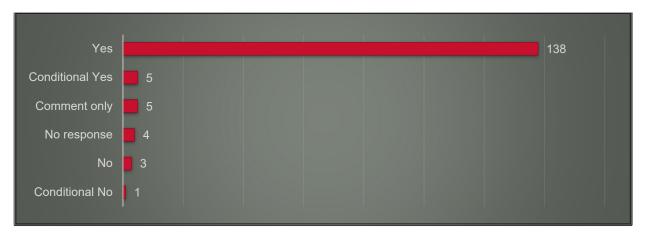


Figure 5. Would Intercity Public Transit Service Be Beneficial

The community was asked where they needed bus routes and stops, as well as the types of trips for which they would use the service. This information is compiled below in Figure 6. The most common answer was work trips, followed closely by day trips (for entertainment or shopping). The requested primary stops included downtown Lincoln and Omaha. Education followed, with UNL, UNMC, and UNO. Nebraska Crossing and Westroads Mall in Omaha were also listed as possible stops.

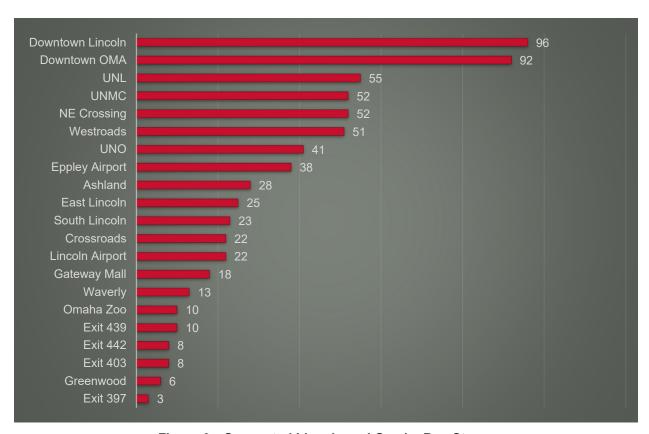


Figure 6. Suggested Lincoln and Omaha Bus Stop





6.3.1.2 Route Options Survey

An online survey was developed after the second round of public engagement meetings. In the survey, three route options were available for review. Respondents were asked which routes would most beneficial to them. In addition, the survey asked what route stops they would add or remove; also, what changes/modifications would they like to make for the route options. Figure 7 shows the detailed answers.

- The I-80 Express Westbound routes via Westroads Mall Transit Center and via Aksarben Transit
 Center were the most well-liked routes with 32 percent of respondents. The Southeast Lincoln
 Extension portion of the route was the least liked as the extension did not work for them.
- The I-80 Express Eastbound route received similar responses as above.

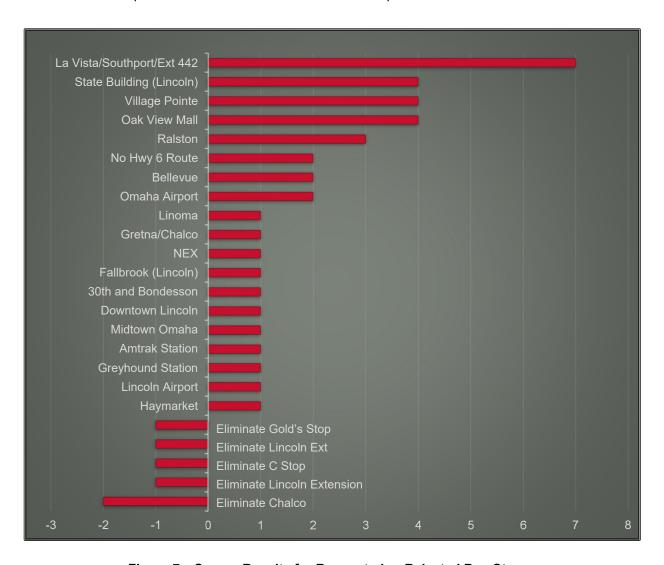


Figure 7. Survey Results for Requested or Rejected Bus Stops





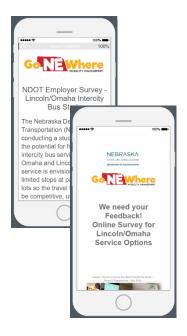
 The remaining responses were evenly split between Aksarben Transit Center and Westroads Mall Transit Center routes. Several comments were made regarding service on U.S. Highway 6 verses the I-80 routes.

Figure 7 also shows the requested stops that were listed in the survey. The most common requested stop was for the Southport, La Vista area at Exit 442 in southwest Omaha. The next most requested stops were the State Building in Lincoln, park and rides at Village Pointe and Oak View Mall.

A question was posed about a service for special events. Most respondents were interested in Fall UNL football and volleyball events. Other special service requests include festivals or other events, such as concerts at Pinnacle Bank Arena, CHI Center, or the Ralston Arena.



6.3.1.3 Employer Survey



The employer survey sought to discover the current environment for commuters, both in geographical work locations and the assistance provided by employers for different types of commuters.

Responses showed the majority of work locations were in Lincoln and Omaha, which was expected as the two largest metro areas. At the primary and secondary employment locations, the majority of employees were full-time positions. Approximately 90 percent of employers offer free parking for employees. Three employers reported the company charges a fee to employees for parking.

Employers reported the majority (92 percent) commute alone in a personal vehicle, with the remaining responses being carpool, bike, and public transit. Currently, employers offer some benefits for commuters, including:

- subsidizing employees who drive alone
- support employees who ride the bus, with flextime and/or bus pass subsidies

6.3.1.4 Final Service Concept Survey

An online survey form was available for comments on the final service concepts for the future Lincoln to Omaha services. The purpose of the survey was to gather information on intended usage, as well as any small tweaks to improve the concepts. Respondents were asked If they would use the proposed Lincoln to Omaha routes, what stops they would use, and if the proposed schedules would work for them.





Questions were posed to respondents about which route they would consider using, which bus stops they would use most, and what times they would be on the bus. Approximately 75 percent of respondents reported they would use the Lincoln to Omaha Red Route. The top three bus stops identified were:

- Eppley Airfield (86 percent)
- UNMC (53 percent)
- Gateway Mall park and ride (50 percent)



Figure 8 shows the full list of stop responses for the Red Route. Respondents indicated the top scheduled times on the Red Route were 5:30 p.m., 5:00 p.m. and 6:00 a.m. times. Requests for weekend service and more afternoon trips were also submitted.

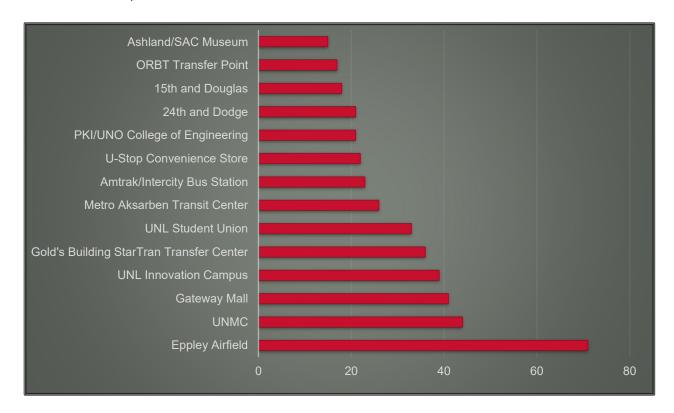


Figure 8. Lincoln to Omaha Red Route Frequency of Bus Stop Usage

Similar to the Red Route, approximately 75 percent responded they would use the Omaha to Lincoln Black Route traveling from Omaha to Lincoln. The top three bus stops were:

- Eppley Airfield (85 percent)
- UNMC (53 percent)
- Nebraska Crossing park and ride (52 percent)





The other responses are listed below in Figure 9. The most frequent responses for scheduling were 6:30 a.m., 9:00 a.m., and 5:00 p.m. Also, like the responses for the Red Route, more weekend service was requested in addition to more morning trips.

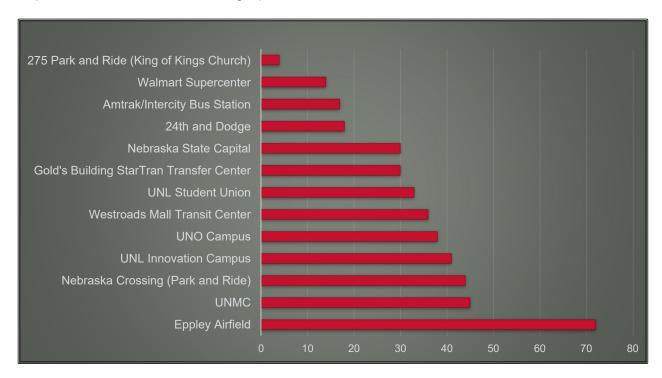


Figure 9. Omaha to Lincoln Black Route Frequency of Bus Stop Usage

The U.S. Highway 6 Local Service Route or the Gold Route had approximately 61 percent of the respondents state they would use the route. The top bus stops selected were:

- Nebraska Crossing (64 percent)
- Gold's Building/StarTran Transfer Center (53 percent)
- UNMC (51 percent)









Figure 10 details the full list of stop responses. With only three currently scheduled routes, the most common change request was to provide more trips, as well as weekend service.

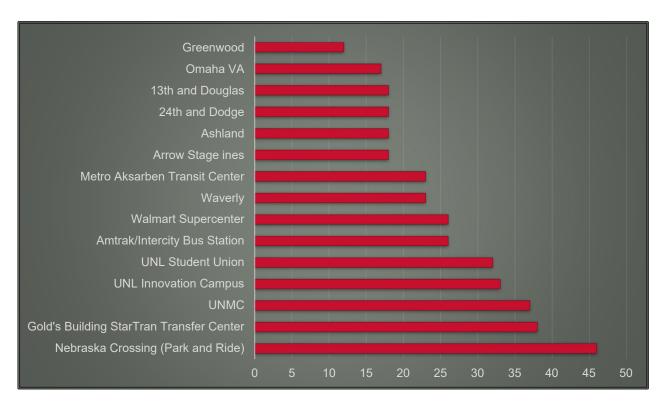


Figure 10. U.S. Highway 6 Gold Route Frequency of Bus Stop Usage









6.4 Community Engagement Meetings

The project team coordinated multiple in-person and online public and stakeholder outreach meetings in three rounds during the study.

6.4.1 Round 1, September 4-6, 2019

Round 1 engagement included key stakeholder meetings within each of the communities. Stakeholders were given the opportunity to sign up for a one-hour, in-person meeting session with the project team. Approximately 40 stakeholders attended the 13 meeting sessions, with numerous attendees participating online and through social

ROUND 1, SEPTEMBER 4-6, 2019

- September 4 in-person stakeholder, technical committee, and public open house meetings in Greenwood
- **September 5** in-person stakeholder and public open house meetings in Lincoln
- **September 6** in-person stakeholder and public open house meetings in Omaha

media. Each stakeholder meeting session included a summary presentation of the project followed by the opportunity for attendees to answer key questions about the project. Attendees were invited to mark on maps suggestions for bus stops, overall route comments, and specific time requests. A project description was provided to each attendee.

Approximately 40 public members attended the three public open house meetings. Each of the open house meetings followed a similar format to the stakeholder meetings, including a summary presentation of the project and the opportunity to provide feedback to the project team. A project description was provided to each attendee, with options for English, Spanish, and Vietnamese. Spanish and Vietnamese interpreters were available in Lincoln and Omaha. An online public open house meeting option was also provided for those not able to attend in person. Numerous citizens viewed the online presentation and provided additional online comments with suggestions for the future intercity bus service.

Advertisement of the first public open house meetings included:

- Legal notices published in area newspapers:
 - Lincoln Journal Star
 - Omaha World Herald
 - El Perico (Spanish)
- Press release distributed by NDOT's Communications Division.
- Email invitations to technical committee and stakeholder groups.
- Project website: nebraskatransit.com







- Project Facebook page: facebook.com/nebraska.transit
- Communication to the Asian Community Cultural Center in Lincoln (Vietnamese).

Round 1 Common Themes

Below is a summary of the common themes collected during the Round 1 public engagement:

- Routes must be reliable and easy to use.
- Convenient schedules for a wide range of users commuters, students, and those attending medical appointments.
- Balance the speed of the commute with the number of stops.
- Reasonable fares and affordable.
- Passengers must have easy connections with the local transit agencies in Lincoln and Omaha to get to their destination.
- Bus amenities are very important Wi-Fi, bike racks, restrooms, and comfortable seats.
- Bus stop amenities and safety are also very important protection from elements, lighting, and secure parking.









6.4.2 Round 2, November 13-15, 2019

Round 2 public engagement followed a similar schedule and format to the meetings in Round 1. Round 2 meetings focused on different route and bus stop options for the future Lincoln to Omaha service. Three route options were presented during the meetings for feedback from key stakeholders and community members.

 Option A - Eastbound express to Omaha using I-80 and Westbound express to Lincoln using I-80. The three options were (1) via Westroads Transit Center in Omaha, (2) via Aksarben Transit Center in Omaha, and (3) an extension through

ROUND 2, NOVEMBER 13-15, 2019

- November 13 in-person stakeholder, and public open house meetings in Greenwood
- November 14 in-person stakeholder and public open house meetings in Lincoln
- November 15 in-person stakeholder, technical committee, and public open house meetings in Omaha

Lincoln reaching south to the CHI Health Nebraska Heart Hospital. Stops were identified in the rural areas for park and rides, as well as various stops in the two metro downtowns and along Dodge Street in Omaha. Service stops at the Burlington Trailways stop in downtown Omaha and the Arrow Stage Lines stop in Lincoln.

- Option B provides service to/from Omaha and Lincoln using U.S. Highway 6. Option B would operate as a service route focusing on the rural area connections to the urban areas with stops at the major activity centers, including shopping and medical services.
- Option C focuses on Special Events service. During Round 1 engagement, many comments were submitted about bus service for Fall Saturday events, such as University of Nebraska Lincoln football and volleyball games or the University of Nebraska Omaha hockey games.

Round 2 Common Themes

In general, the community liked all service route options, with a slight preference for Option A, traveling via Westroads Transit Center for the westbound route to Lincoln. The south Lincoln extension to the heart hospital was suggested to be removed due to duplicate StarTran service.



The U.S. Highway 6 service option verses the I-80 express routes were discussed. Support for both routes was expressed due to the need for the rural communities to have reliable service to/from the urban areas. Some concerns about the route timing were expressed for the U.S. Highway 6 option but understood due to the speed limit and service route focus.

One stop mentioned multiple times was an additional stop in La Vista, Exit 442 near Cabela's, PayPal, and the Convention Center. In Lincoln, a loop near the State Capitol building was proposed, as well as making sure the





intercity bus will connect at the new transit/transfer center for StarTran. It was also recommended the UNL downtown stop should be near the Student Union.

A valuable discussion was held at several meetings about using existing facilities, such as parking garages, parking lots, or NDOT property for future park and ride lots or stops. Partnerships with local entities and businesses were stated as high priority for siting future stops, as businesses may have existing services for bus passengers or could offer shuttle service for destinations.

Advertisement of the second public open house meetings included:

- Legal notices published in area newspapers:
 - Lincoln Journal Star
 - Omaha World Herald
 - ➤ El Perico (Spanish)
- Press release distributed by NDOT's Communications Division.
- Email invitations to technical committee and stakeholder groups.
- Project website: nebraskatransit.com
- Project Facebook page: facebook.com/nebraska.transit
- Communication to the Asian Community Cultural Center in Lincoln (Vietnamese).









6.4.3 Round 3, February 25-27, 2020

Round 3 public engagement mirrored the format of Round 1 and 2. Key stakeholders had options to join meetings with the project team to learn of the preferred plan for future Lincoln to Omaha transit service. Round 3 provided 16 different meeting times and days for attendees. Approximately 75 stakeholders and members of the public attended the in-person meetings. Many others viewed the presentation online and submitted feedback on the preferred plan. Each person was provided a project description and copy of the presentation materials.

The preferred alternative future transit service includes three routes: Red, Black, and Gold.

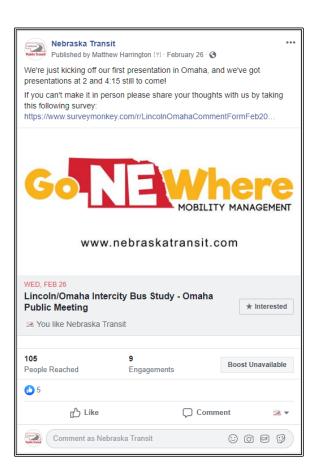
- The Red Route travels eastbound from Lincoln to Omaha, reaching job sites, the universities, and downtown Omaha.
- The Black Route travels westbound from Omaha to Lincoln for jobs, educational facilities, and other activities.
- The Gold Route connects the rural communities of Ashland, Greenwood, and Waverly via U.S. Highway 6 to services, such as jobs, medical facilities, and shopping destinations.

Round 3 Common Themes

Overall, the public and key stakeholders supported the preferred service option. First mile/last mile connections continued to be a primary focus of attendees, as well as ease of fares and integration with the current services such as bike share, Uber/Lyft, StarTran, and Metro. An affordable, reasonable fare was also considered important to the success of the program.

ROUND 3, FEBRUARY 25-27, 2020

- February 25 in-person stakeholder, technical committee, and public meetings in Lincoln
- **February 26** in-person stakeholder and public meetings in Omaha
- February 27 in-person stakeholder and public meetings in Ashland







It was also suggested when marketing the future service, promoting environmental benefits, and supporting green investments should be part of the message for future service. Discussion and interest in electric buses or alternative fuel sources was also held at several of the meetings.

The future service option for Special Events will continue to evolve over the next phase of the study. The project team will coordinate with local entities to determine the best method for intercity bus service to help meet the transportation needs of the events, as well as following Federal Transit Administration funding guidelines. Other discussion included the addition of the La Vista stop and which stops would be finalized. Route timing was also a concern if the project team continues to receive requests for stops.













7. Transit Demand Estimates

7.1 Approach

Transit demand estimation for intercity bus service includes many key variables including levels of commuting between Lincoln and Omaha, and data on where and when people travel. The initial

development of aggregate demand in the corridor between Lincoln and Omaha used a rule-of-thumb estimate. This was then refined and validated through an examination of a variety of data and compared to peer systems.

Approximately two percent of the total number of commuters in the travel corridor is a reasonable proxy for overall ridership in a long-distance corridor. The Longitudinal Employment and Housing Data (LEHD) from the Bureau of Labor Statistics is the source of the commuter travel data.

The project team examined more detailed data, focusing on where riders might travel to and from, when travel occurs throughout the day, and how the level of service impacts ridership in the corridor. These additional data elements provide information on where and when the trips might occur, giving insight on the service levels and routing to best serve the markets for travel between these two cities.

The information from these sources, alongside the LEHD data, was analyzed to understand how ridership demand might break out between stops and the level of service warranted. This information was used in an iterative process, with ridership estimates, routing, and stops refined each time the process was repeated. To develop route-level ridership forecasts,

TRANSIT DEMAND DATA SOURCES

<u>Travel Sheds</u> - The travel sheds from which people will most likely travel to access a park and ride are identified, along with the jobs within a ½-mile walk of proposed stops.

<u>Cell Phone Data</u> - These data provide origin and destination locations of people traveling through the region. The cell phone information is broader than the LEHD data in that it includes students and other non-workers who are commuting between the two metropolitan areas

<u>Peer Systems</u> - Chapter 4 identifies similar peer services across the country. Detailed ridership counts from two systems, and other information, aids in better understanding potential ridership patterns and levels of use.

the project team identified potential routes, stops, and service levels. Several options were evaluated through the process below.

- An evaluation of where people lived and worked to identify concentrations of jobs and the workers who filled these jobs.
- Consideration of travel times and transit connections.
- An investigation into the available locations for stops.
- Public involvement.
- Working with Omaha Metro and StarTran staff to determine both transit connections and the paths
 of travel they have found useful in their communities.





Note that the data from each source (LEHD, cell phone data, travel time data) covers somewhat different markets or types of information and have different levels of detail, such as breakouts by the time of day, or reflect different geographic areas. The project team worked with the differences and similarities to develop a comprehensive understanding of demand, given the available information.

7.2 Commuter Ridership Comparisons

The LEHD provides information on where workers live and where they are employed. An advantage of this data is that it is widely available; a disadvantage of the data is it does not consider student or other travel markets. The rule-of-thumb estimate is that total ridership on a regional route equates to about two percent of the number of workers traveling between the communities. This estimate helps gauge if transit service might be viable in a corridor. The two percent figure includes all riders, not just commuters.

Figure 11 presents the number of all employment-based people traveling between the regions, for 2017, illustrating strong bi-directional travel. There are 13,540 workers in the corridor who travel to Omaha, with over 12,000 of these from Lincoln. There are approximately 10,200 commuters from the Omaha region traveling to Lincoln. Two percent of these numbers result in a daily total of approximately 450 trips.

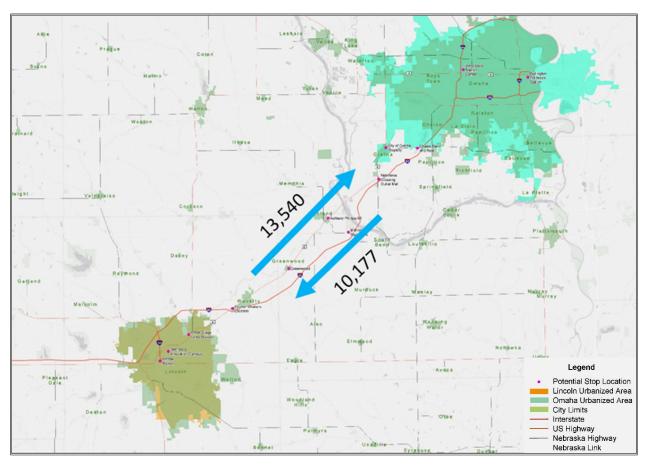


Figure 11. Daily Commuters Between Regions (2017 LEHD Data)





7.3 Factors Influencing Service Alternatives

The Lincoln to Omaha corridor has the advantage of demand in both directions as workers, students, and residents of each metropolitan area routinely travel to the other city. Figure 11 shown above illustrates the number of commuters in the corridor. Total travel volumes on I-80 also illustrate this pattern. Bi-directional travel demand is a significant advantage. In most regional services, there is a single directional focus that results in many non-revenue miles (as the vehicles return with few passengers) or the need for drivers to find another useful activity during the day.

Employment characteristics are also important. There is a mix of jobs, including government, university, business, and healthcare jobs with stable schedules that can be readily served by transit operating on a fixed schedule. The mix of students and medical center staff in the corridor; however, means travel times are spread over more hours, and go into the evening for shift work and night classes.

In both Lincoln and Omaha, there are clusters of employment and activity centers. In Lincoln, the State government complex and UNL have a cluster of jobs and activities, so two or three stops can serve most destinations. In Omaha, the Aksarben Village area, UNO, University Medical Center, and downtown corridor form a backbone for destinations. Omaha will also have the ORBT service providing frequent connections along the Dodge corridor.

It is worth noting residents who might use transit to travel to work in the neighboring metropolitan area will be coming from neighborhoods separate from the employment sites. People often locate on the outside





edge of their city to make their commute as short as possible. As a result of these living and travel patterns, the project team began to develop two separate routes in the corridor, one serving residents of Lincoln who travel to Omaha (the Red Route) and the other serving residents of Omaha who travel to Lincoln (the Black Route). Separate bus routes will enable service to be as direct as possible for each market and therefore have the most competitive travel times.

Generally, regional services use a common service standard of 20 riders per vehicle trip (for buses traveling in a peak direction one-way). With daily demand of about 450 one-way passenger trips daily, a robust schedule of at least 22 one-way vehicle trips (or 11 round trips) could be justified, reflecting an average load of 20 passengers per trip. Because of the bi-directional travel and the potential to capture a broader market, it may be possible to offer additional trips and remain within performance targets.

This overall demand information forms the service alternatives, including route patterns and service levels. The public outreach also forms service alternatives to assure the findings and service designs reflect the experience of the people who live and work in these two regions. While the daily travel between Nebraska's





most populous cities shows a somewhat higher demand among Lincoln residents traveling to Omaha for daily work activities, the public involvement also emphasized the importance of serving sporting events in Lincoln, many of which occur on weekends.

7.4 Travel Shed

Within urban areas, a travel shed shows where most riders live. These are transit riders who find it worthwhile (and generally time-effective) to drive to a park and ride or access the bus by walking or transit. Figure 12 illustrates the travel sheds for the Red Route, serving residents of Lincoln traveling to Omaha destinations. Figure 13 shows the travel sheds for the Black Route, serving residents of Omaha traveling to Lincoln destinations. In each figure, red parabolas illustrate the approximate area where research reflects locations from where people are willing to drive to access a park and ride lot and take transit.⁹ These travel sheds overlap for stops located close to each other.

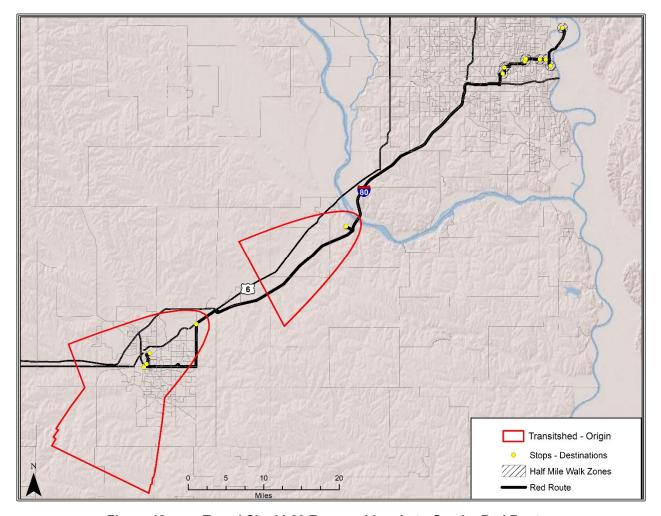


Figure 12. Travel Shed I-80 Express Lincoln to Omaha Red Route

⁹ Transit Cooperative Research Program (TCRP) Report 95, Traveler Response to Transportation System Changes, Chapter 3, "Park and Ride/Pool", p.3-30.





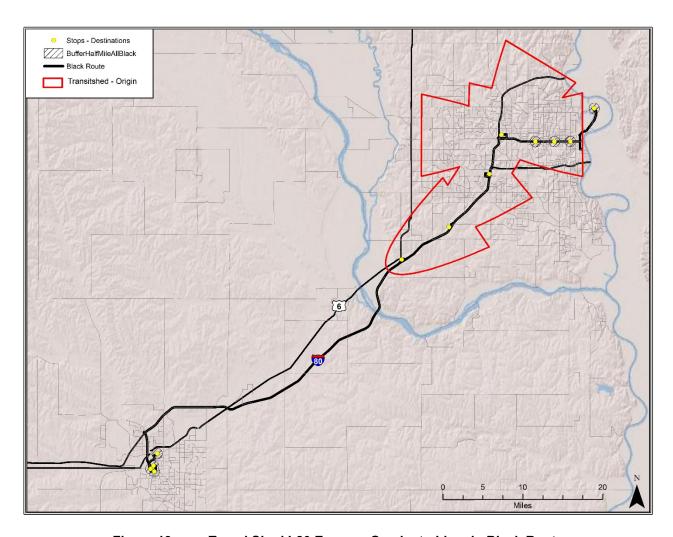


Figure 13. Travel Shed I-80 Express Omaha to Lincoln Black Route

For origins in Lincoln, the travel sheds cover most of the city. Note that not all stops will have parking associated with the stop. The stops in downtown Lincoln and the University are ones that would primarily be accessed by walking, biking, or bus. The stops at Innovation Campus and Gateway Mall in Lincoln and the Strategic Air Command Museum outside Ashland will have parking available for riders.

For origins in Omaha, the main park and ride lots are Westroads Mall, La Vista park and ride at Cabela's, and Nebraska Crossing Outlet Mall¹⁰. The travel sheds cover much of the area except the southeast portion of the metropolitan area. The stops from downtown Omaha and along Dodge Street are not ones with parking access but do have transit and walking access. As with Lincoln, the travel sheds for park and ride locations cover much of the residential area of Omaha.

For the Red Route, destinations in Omaha start at Aksarben Village Transit Center and the Peter Kiewit Institute. These stops are within walking distance of a significant number of jobs, including medical,

¹⁰ These stops and the travel sheds reflect earlier versions of the stop locations. After considering public comments and parcel ownership, some stops have been moved, but the travel sheds remain virtually unchanged.





engineering, financial, and managerial positions. The route continues to the University of Nebraska Medical Center and into downtown.

It is useful to review the overall ridership estimates based on the direction of travel. Returning to the ruleof-thumb estimate of ridership based on two percent of regional employment, one would expect to see:

- I-80 Express Lincoln to Omaha Red Route riders (live in Lincoln, travel to Omaha) of approximately 250 one-way trips on an average weekday.
- I-80 Express Omaha to Lincoln Black Route riders (live in Omaha, travel to Lincoln) of just under 200 one-way trips.

The actual number of riders going to work will be a portion of the total as people will also travel for school, social, and other reasons. Indeed, because of the high number of students who travel between the campuses, the total ridership might be adjusted upward to reflect this sector. The first task examines the residence and employment pairs to make sure they are in line with the anticipated total ridership.

The LEHD data was divided into travel sheds around each stop to identify origin and destination pairs. Table 5 shows first the number of resident/employment pairs and then the percentage of the same for several locations served by the Red Route. In looking at the LEHD data, remember it represents the number of resident (origin) – job (destination) pairs, so each pair equates to a round trip.

Table 5. Lincoln to Omaha Red Route Origin and Destination Pairs (2017 LEHD)

Lincoln to Omaha	Destination -	TOTAL				
Red Route Origin	Aksarben	UNMC	Dodge St.	Airport	TOTAL	
Lincoln	564	263	694	216	1,737	
Gateway	247	116	338	101	802	
Ashland	100	78	125	25	328	
Total	911	457	1,157	342	2,867	
Lincoln to Omaha	Destination -	TOTAL				
Red Route Origin	Aksarben	UNMC	Dodge St.	Airport	TOTAL	
Lincoln	32	15	40	12	100	
Gateway	31	14	42	13	100	
Ashland	30	24	38	8	100	
Average Percent	32	16	40	12	100	

In evaluating this data, the team asked several questions. The first question examines the reasonableness of the data. Does it seem likely that the estimated ridership could come from the universe of origins and destinations served by the proposed route? Table 5 shows the Red Route would serve a total of 2,867 such origin-destination pairs. The estimated 129 daily riders from Lincoln (each making round trips) would result in a transit mode share of 4.5 percent, a reasonable expectation. The transit travel time and the fare will impact the final number, along with the safety of parking and comfort of the vehicle. Assuming these quality





of service factors are within an acceptable range; the estimate appears reasonable and may even be on the low end.

The next step reviewed the distribution of trips. Table 5 shows approximately 32 percent of riders would alight at the Aksarben Village stops, 16 percent at the UCMC stop, and 40 percent along the Dodge Street corridor stops. Note that the Ashland jobs are primarily focused around UNMC (with 24% of Ashland jobs). Also, the airport shows 12 percent of total riders. It is likely the airport ridership will consist less of employees and include more travelers. The overall schedule of the service will be geared to the commute trip for riders going to Aksarben or the downtown stops and will not be as good a fit for airport workers. However, flight attendants and pilots have variable schedules, so it may well serve some of the market.

A similar analysis was completed for the Black Route. Table 6 contains the same information, but the Omaha origins only show as a single row. There is so much overlap between the parabolas showing where each location may draw from that it was not possible to divide it between boarding locations. Westroads Mall will likely be a central boarding location.

Origin	Destination	Tatal		
	Lincoln CBD	UNL/Golds	Innovation	Total
Omaha	2,991	782	198	3,971
Omaha (percent)	75	20	5	100

Table 6. Omaha to Lincoln Black Route Origin and Destination Pairs (2017 LEHD)

To draw a total of 95 daily riders (each making round trips) would result in a transit mode share of 2.4 percent. This is a lower percentage than for the Red Route because it includes all Omaha origins. While it is reasonable, likely the number of origins east of Westroads Mall would be limited while the origins around Westroads Mall and south would have a mode share more similar to that in Lincoln. What is of particular interest is the high percentage of jobs served in the Lincoln Central Business District. Many of these are in the government sector and would have regular hours, well suited to the transit mode. The nature of these jobs, along with limited parking for employees, makes this a good transit market.

7.5 Cell Phone Data

Cell phone data, from Streetlight Data, was also analyzed to understand the details of travel patterns. It covers all 2019 travel, not differentiating work trips from the total, so similarities and differences with the LEHD information also is useful in refining and validating the previous data.

Zones were developed in Lincoln and Omaha to understand specific destinations and origins within the metro areas. The maps on the following pages illustrate the routes and stops. This emphasizes the key destinations in Lincoln and Omaha for travel. This data is particularly useful, as it is information that could not be extracted from the LEHD data.







7.5.1 Cell Data Zones

The cellphone data analyzed patterns (Origin – Destination (O-D)) of travel between "zones" or predetermined areas of the communities, tracking the zones in which trips began and ended. To create the zones, the two cities were sectioned off along both neighborhood and township lines and business districts. The rural communities were zoned to include the town limits, as well as a portion just outside those limits. A series of heat maps follow illustrating cell phone travel patterns from Lincoln, from Omaha, and from the rural communities in the corridor.

CELL PHONE DATA

To better understand daily total numbers traveling the corridor from more specific locations, this report used cell phone data pings to track origins and destinations of users. These data were especially helpful in determining the nonwork-related travel, such as students or medical trips.

Lincoln to Omaha Travel

Cell phone data indicated most travelers from Lincoln to Omaha ended in the East Dodge Street corridor, along North I-680, and in North Omaha, seen in Figure 14 as red and orange colored zones, respectively. While these determined zones were large, additional analysis was then narrowed to focus on census block groups and is presented following the heat maps. From Lincoln, the majority traveled to the 84th and Dodge area, Aksarben Village, University of Nebraska Omaha (UNO)-North Campus, University of Nebraska Medical Center (UNMC), and various downtown or Old Market areas.

The North Omaha Zone exhibited nearly exclusive travel to Eppley Airport. Originally, the airports were not included in the route due to travel time concerns, but after community feedback, viewing the smaller block group patterns, and such a seeing large movement from Lincoln to the Omaha airport, the route was changed to alternate between airport and train-intercity bus station.

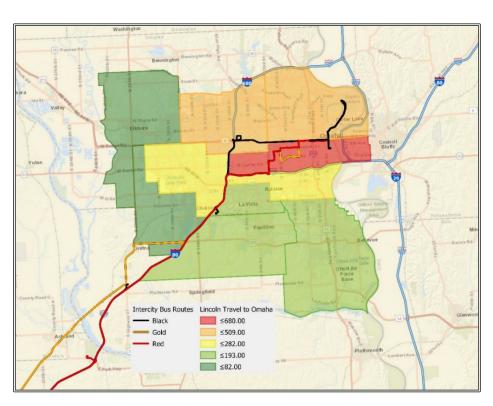


Figure 14. Heat Map of Lincoln to Omaha Travel (O-D)





Omaha to Lincoln Travel

The analysis showed Omaha residents primarily travel to downtown Lincoln, with the highest volume in the morning (6:00 a.m. – 9:00 a.m.), as shown in Figure 15. Interestingly, this trend continued into the midday time frame (9:00 a.m. – 3:00 p.m.), most likely from students, day trips, and medical trips. Narrowing the analysis to census block groups within the Lincoln downtown zone, data revealed residents from Omaha were headed almost exclusively to downtown Lincoln, the Haymarket, and the UNL campus.

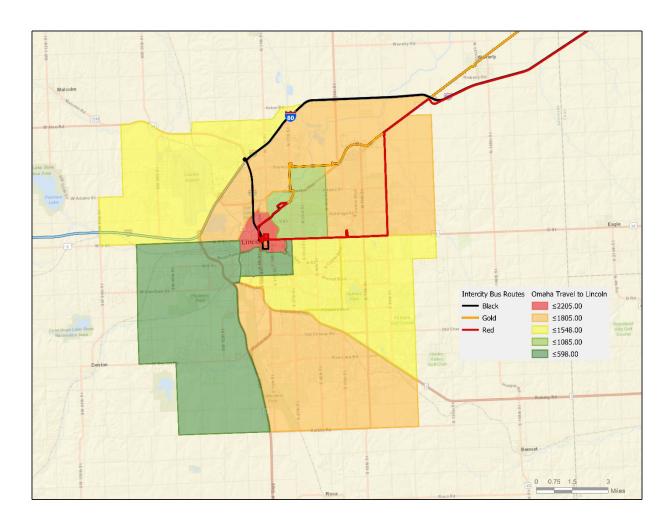


Figure 15. Heat Map of Omaha to Lincoln Travel (O-D)

Rural Communities

The rural communities included in the analysis were Ashland, Greenwood, Gretna, and Waverly, due to their proximity to the I-80 and U.S. Highway 6 corridors. Each of the rural communities showed an even distribution of travel to the larger cities during daytime travel between 6:00 a.m. and 7:00 p.m. Patterns indicated travelers from the rural communities traveled to similar destinations as the larger communities, which are shown in Figure 16 and 17. The largest counts of travelers were headed to downtown Lincoln and Gateway Mall in Lincoln and UNMC and Aksarben Village/UNO in Omaha.





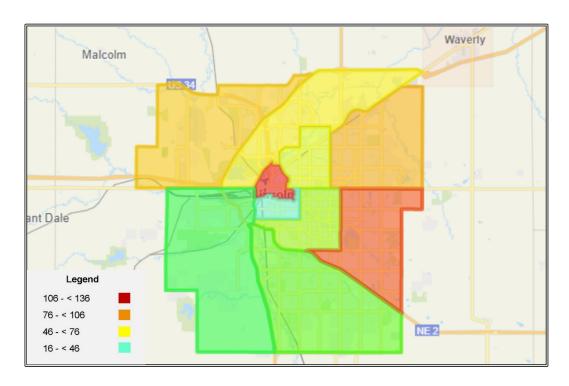


Figure 16. Heat Map of Rural Communities to Lincoln Travel (O-D)

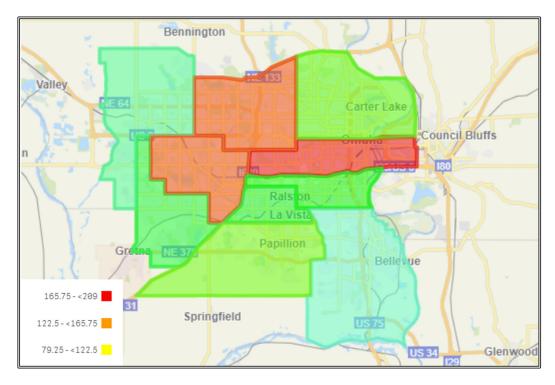


Figure 17. Heat Map of Rural Communities to Omaha Travel (O-D)





Table 7 is a matrix of origins in Omaha and destinations in Lincoln based on the cell phone data for weekday morning peak movements in the zones closest to the proposed Black Route. These 2,234 trips represent only 30 percent of the total movements of 7,395 phones. The 95 projected trips on the Black Route would represent 4.3 percent of these individual trips, once again a very reasonable number. While this number is somewhat higher than used for the total trips from Omaha, these data give a result well within a reasonable expectation for ridership. Note that the information is drawn from a narrower geographic area but uses total trips rather than only work trips.

Table 7. Cell Phone Origins and Destinations (Omaha to Lincoln, A.M. Peak)

	Total			
Origin	Downtown, Haymarket, UNL	West of U.S. Highway 6 (NE 2)	Antelope Pkwy, "O" St, 48 th St (NW 2)	Total
Westroads Mall	232	79	134	445
King of Kings	233	100	86	419
Omaha Central	229	103	149	481
South Omaha	60	59	101	220
La Vista/Ralston	74	44	47	165
Chalco	161	87	73	321
Papillion	68	59	56	183
Totals	1,057	531	646	2,234

Another interesting finding was a surprisingly large count of cell phones traveling between the key Omaha origins and the two Lincoln destination zones, identified as NW 2 (bounded by Antelope Parkway, 48th Street, and "O" Street) and NE 2, located to the west of U.S. Highway 6. Both zones have some access to the route. While the Lincoln zone to the west of U.S. Highway 6 (NW2) is large and contains relatively dispersed employment, the Lincoln zone east of downtown (NE 2) contains Innovation Campus and UNL East Campus. As final schedules are developed for the service, effective connections within these zones will be important due to the total number of travelers.

Finally, the cell phone data reported a surprisingly high number of phones traveling between the two urban areas on Saturdays, as compared to weekdays. This data includes weekend activities and reinforces the case for Saturday service.

7.5.2 Cell Phone Data Conclusions

After running these analyses, it was clear the trip patterns, especially origins and destinations, were different for the Lincoln and Omaha communities. Residents of Omaha were not traveling to the south-southwest portions of Lincoln, from where Lincolnites were originating. Similarly, Lincoln residents were traveling to the eastern portion of Omaha (Dodge Street corridor and mid/downtown areas), but Omaha residents were starting their trips in the western portion. Because of these specific findings and a desire to attract the





largest ridership base for a successful service, two routes were developed to service the different origins and destinations in the corridor.

7.6 Ridership in Peer Systems

Chapter 4 previously describes several other peer intercity transit services. The focus of the following is to provide more information on ridership from two specific systems. The peer comparison helps identify conditions that relate to obtaining such ridership levels. The two services for which detailed information was collected were Bustang North Line and I-380 Express.



Bustang North Line

Bustang North Line between Fort Collins and Denver in Colorado, a route of comparable length (65 miles). Fort Collins's population is estimated at 167,800, and the city is home to Colorado State University, with a student population of 33,000. The Denver-Lakewood-Aurora Metropolitan Area has a population of about 2.8 million. The City of Denver, which includes the core downtown served by

Bustang, has approximately 717,000 residents and 492,000 jobs. There are an estimated 344,000 workers who commute to Denver. This service is oriented to peak hour commuters traveling to Denver, with six peak hour trips (to Denver in AM and Fort Collins in PM) and two mid-day trips. The buses primarily travel in the peak direction with limited mid-day service. Limited weekend and holiday service are also operated. While the North Line does not serve many students as part of their routine weekday schedule, they do operate two extra schedules on Friday evening (Fort Collins to Denver) and Sunday evening (Denver to Fort Collins) to provide service for students traveling home or to the big city for social activities on the weekend.

I-380 Express

I-380 Express operates between Cedar Rapids and Iowa City in Iowa, a route 30 miles in length. Iowa City, a population of 76,000 while the Iowa City Metropolitan area, including Coralville, has a population of over 171,000. Iowa City is home to the University of Iowa, with 33,000 students. Iowa City has 55,000 jobs, and 36,800 people commute into the city. Cedar Rapids has a population of 122,800, and the urban area is

double that with a population of 258,000. Cedar Rapids has 105,000 jobs, with 64,600 commuting in. Kirkwood Community College in Cedar Rapids has 9,000 students and also has a campus in lowa City. This service operates every half hour and is orientated to lowa City, with over 80% of morning riders traveling to lowa City. The I-380 route has a strong focus on student and faculty transportation with direct connections between the community college campuses and the university. It only operates







weekdays and does not appear to capture much of the commuter trips where the predominant direction would be to Cedar Rapids.

This chapter has referred to the rule-of-thumb used to estimate ridership, at percent of the two employment markets served. The results for these two systems are illustrated in Table 8 and 9. The population used for the per capita calculations was from the LEHD 2017 data for total commuters. In Table 8, the basis



percentage calculations is 16,473 commuters who traveled from Fort Collins and Loveland to the Denver-Lakewood-Aurora urban area. In Table 9, the basis of the percentage calculations is the 10,238 commuters traveled from Cedar Rapids to Iowa City urban area and Iowa City to the Cedar Rapids urban area. In both tables, the calculation reflects the percentage of commuters traveling on a typical weekday.

Table 8. Bustang North Line Weekday Ridership

	No. of		Daily Per Capita Riders		
Month	Weekdays	Fort Collins	Loveland	Denver	(Daily % of 16,473)
Jan	22	1,964	1,535	3,269	1.9
Feb	20	2,180	1,406	3,196	2.1
Mar	21	2,296	1,370	3,208	2.0
Apr	22	2,626	1,515	3,695	2.2
May	22	2,559	1,532	3,772	2.2
June	20	2,294	1,418	3,409	2.2
July	22	2,739	1,524	4,082	2.3
Aug	23	2,680	1,806	3,886	2.2
Sep	19	2,399	1,475	3,413	2.3
Oct	23	2,680	1,806	3,896	2.2
Nov	21	2,489	1,328	3,274	2.0
Dec	20	1,819	1,157	2,593	1.7
Total	255	28,725	17,872	41,693	2.1





Table 9. I-380 Weekday Ridership

	No. of	Total	Daily Per Capita Riders (Daily % of 10,238)	
Month	Weekdays	Riders		
Jan	22	4,142	1.8	
Feb	20	4,905	2.4	
Mar	21	4,279	2.0	
Apr	22	4,666	2.1	
May	22	4,143	1.8	
June	20	4,068	2.0	
Total	127	26,203	2.0	

It is notable for both systems, the number of commuters between the outlying areas and the destination cities is a good proxy for ridership, even though the markets are entirely different. This suggests that:

- Service design and schedules oriented to the market are critical factors in capturing market share.
- The market for commuting students and university staff is similar to commuters in other types of jobs and, therefore, might be additive, although the service design and schedules require a somewhat different orientation.







For example, service every hour throughout the day might be more important in capturing riders in the educational sector, where most employees work a standard 8-hour shift, and most mid-day trips are lightly used.

To the extent that future Lincoln to Omaha service can be designed to serve both markets, a ridership percentage estimate somewhat higher than two percent might be reasonable.

7.6.1 Ridership Survey

A ridership survey was conducted on Bustang in 2017, and the North Line represented 34 percent of the responses. Some key findings were:

- 61 percent of riders were commuters; 33 percent were traveling for social or recreational purposes, and four percent were traveling for essential services such as medical or shopping. This survey included the West line serving mountain resorts, so the social/recreational percentage might be somewhat higher than between Lincoln and Omaha. In Lincoln and Omaha, the student ridership is expected to be significant.
- Three top amenities were Wi-Fi, connections to other services, and the express service.
- Reasons reported for riding were:
 - > 37 percent preferred someone else drive
 - 27 percent did not have access to a car or license
 - > 20 percent found it more affordable than driving and parking downtown Denver
- Riders are primarily between the ages of 25 and 55 (64 percent were in this group).
- Riders are well educated, most with a college degree.
- Riders have higher incomes, with 44 percent reporting between \$75,000 and \$199,000 annual incomes.
- At their destination, 31 percent transfer to a bus or light rail and 26 percent walk.

7.6.2 Quality of Service

The 2017 ridership survey also indicated important components of quality of service include:

- Travel time
- Reliability
- Safety at stops and on vehicle
- Quality of vehicle, including amenities

AMENITIES

- Wi-Fi
- Connections to Other Services
- Express Service

REASONS FOR RIDING

- Someone Else Drive
- No Access to a Car or License
- More Affordable than Driving and Parking Downtown







7.7 Summary Demand by Route

The above analysis is the foundation of the demand estimations for each route. Data focused on ridership between the urban areas. In addition, demand calculations for the Gold Route are based on the technique in the Transit Cooperative Research Program (TCRP) Report 147: Toolkit for Estimating Demand for Rural Intercity Bus Services. The Gold Line characteristics are more similar to a typical rural intercity route that is focused on general trips rather than work trips.

For the Red and Black Routes, the base for demand is two percent of the commute market, as described above. Also, for the Red Route, a factor is added in for the student market, as evidenced by the I-380 service showing the student base is a distinct market. The Red Route options are designed to serve general commuters to Omaha, staff associated with UNMC, and students who travel to the Peter Kiewit Institute of Engineering. The ridership estimate arrived at using two percent of the commuters (267 daily one-way trips or 133 roundtrips) was increased by 25 one-way trips to estimate the average student market.11

Travel to Omaha from Lincoln residents represents the predominate direction of travel for the Red and Black routes, with about 60 percent of the projected ridership. Also remember the Red Route ridership will vary more than the Black Route, as the student riders will only be present when school is in session. These ridership levels support approximately 22 to 28 one-way bus trips, or 11 to 14 round trips, a performance measure of 20 riders per trip.





For Gold Route estimations, the regression model developed as a tool in TCRP Report 147 was used. A trip-rate model that is based on population, from the same report, was also compared to the regression results. The demand was calculated twice, once using the population of the Lincoln urban area (due to the bi-directional nature of demand), and once not including the Lincoln population. Including the Lincoln population in the regression tool better matched the trip-rate model. The most reasonable low and high estimates may well be between 56 and 62 daily riders, or 14,600 to 16,400 annual riders. This is the high end of the model without the Lincoln population and the low end of the model with the Lincoln population.

¹¹ The 35 existing riders, as reported by UNO, (each making a round trip) only travel when school is in session – about one-half of the year.





Table 10. Demand Projections by Route

Route	Weekday One-way Trips		Annual Total		Weekend
Roule	Low-end	High-end	Low-end	High-end	Day Riders
Red Route	263	321	69,000	84,000	73
2% commuters plus students					
Black Route	172	210	45,000	55,000	43
2% of commuters					
Gold Route – 20,300	62	92	16,374	24,217	n/a
Gold Route, no Lincoln – 10,000	21	56	5,539	14,555	
Regression Model - TCRP Report 147 used for Gold Route estimates.					
Low and high ranges reflect 95% confidence interval for regression model.					

The Gold Route has much lower ridership than the Red and Black routes. A lower performance standard and a smaller vehicle might be appropriate for the Gold Route. Three weekday round trips (six one-way trips) on the Gold Route results in an average of ten riders per trip.

The Bustang North Line provides weekend service. Their ridership numbers were about ¼ of weekday ridership. The public involvement and cell phone data support service on Saturdays, at a minimum, and possibly Sundays. Decisions will be needed in the next phase of the study as to only offer special event service or a combination of limited weekend service and additional special event service. Experience on Bustang shows that about 3-4 round trips might be viable on weekends.

These demand numbers provide estimations of ridership with a good level of service quality. In the service planning phase, final decisions are made on the level of service and timing recommended for the initial service.

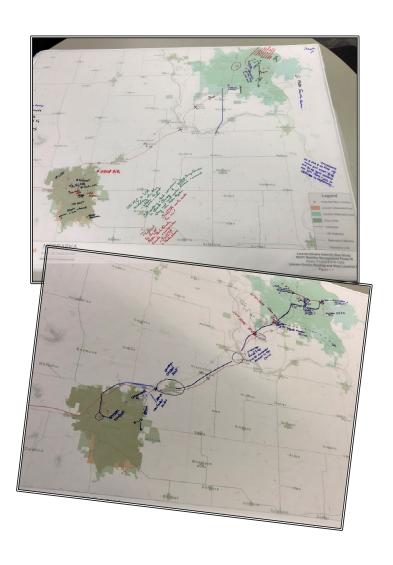




8. Development of Routes

Given there is a market of significant size for transit travel between Lincoln and Omaha, and there are a number of examples of successful services in similar environments, the study turned to the question of what kind of service would best address the Lincoln-Omaha market. The route, the stops, the frequency - all were considered to estimate the cost for future service.

The development of a preferred alternative began with consideration of several factors that define the options in terms of route and stops. The process of developing alternatives and refining them was closely linked to an extensive public outreach process involving the public, stakeholders, and a Technical Advisory Committee (TAC). The initial round of public engagement included dimensions of the overall market with information about the successful examples in other locations. Input regarding the perceived need, the preferred route and stops, desired service levels and amenities was collected at meetings and online. Chapter 6 provided a summary of the public engagement. This input was incorporated into the development of alternatives.



8.1 Factors in Developing Alternatives

8.1.1 Connect Activity Centers

An obvious initial requirement of any proposed service is the need to connect activity centers where employment density and/or residential density is high. This is needed to maximize the number of people who could potentially walk to or from a bus stop. The study team developed maps based on Census data depicting the location of employment density in the two urban areas, initially using zip code data and census track data. Because the market is bi-directional, this initial analysis was done for Lincoln residents employed in Omaha, and Omaha residents employed in Lincoln. Figures 18 – 21 illustrate the origin and destination patterns.





In general, this analysis revealed areas with the highest density of residents commuting to the other city is dispersed, particularly in Omaha. The implication is a need for any transit service connecting the two urban areas to have park and ride opportunities, and to connect with the local transit systems at major hubs offering the greatest coverage. The same is true for areas of employment density, though in general these destinations are more centrally located, while the residential stops are more on the periphery of the urban areas. Thus, indicating the stops for pickup points would be in different locations from the stops for drop-offs.

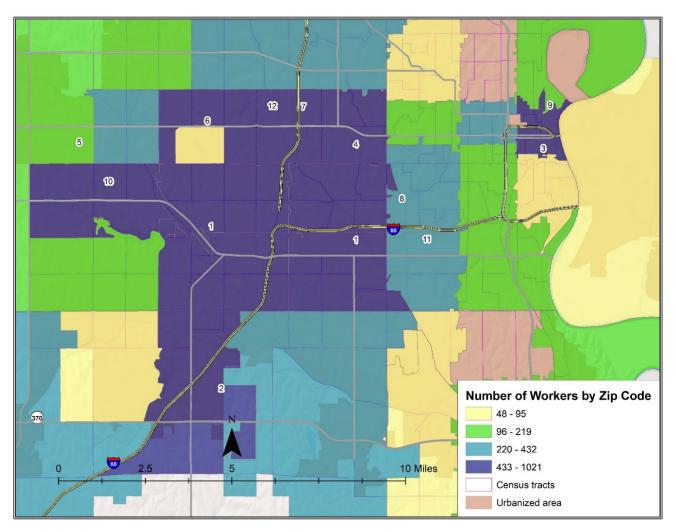


Figure 18. Omaha Employment Locations of Lincoln Residents





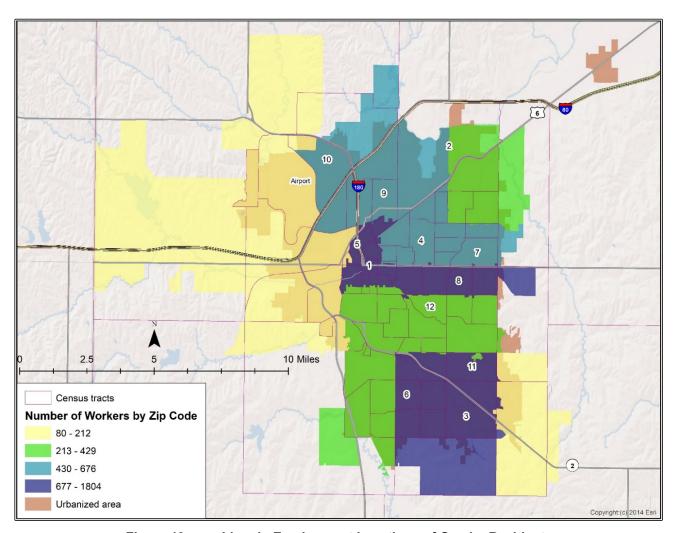


Figure 19. Lincoln Employment Locations of Omaha Residents





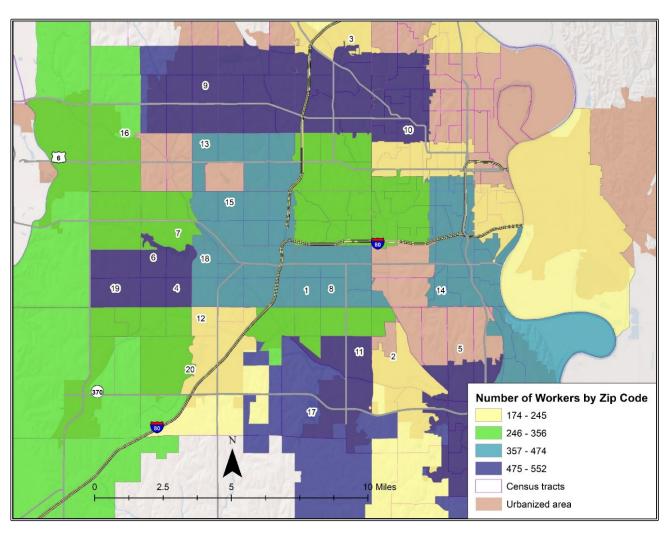


Figure 20. Omaha Residential Locations of Commuters to Lincoln





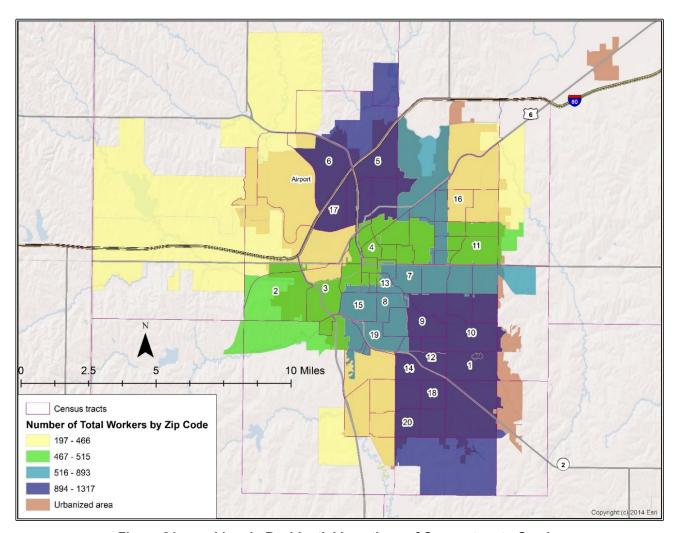


Figure 21. Lincoln Residential Locations of Commuters to Omaha

Another early consideration was the input from the public, stakeholders, and the TAC. Input came in several forums, but in general resulted in a common list of desired stops:

- Eppley Airport
- University campuses:
 - ➤ UNL main campus
 - > UNL Innovation Campus
 - UNL East Campus
 - UNO-Peter Kiewit Institute (PKI)
 - UNO-Main Campus
 - Creighton University





- Hospitals
 - > UNMC
 - Veterans (Omaha)
 - Lincoln Heart Hospital
 - Children's (Omaha)
- State Capitol/state offices
- Downtown Omaha offices
- Old Market area
- North Omaha
- Nebraska Crossing Outlet Mall
- SAC Museum
- State Park
- Cabela's/La Vista
- Waverly
- Greenwood
- Ashland
- Gretna
- Stadiums in both cities for special events (especially home Husker football in Lincoln and the College World Series in Omaha)







A general comment is that many more needs were identified in this study process than could be addressed by a limited service connecting Lincoln and Omaha. Much of the input was very relevant to consideration of a regional transit service to address the regional transit needs, including local transit service from a number of places into Omaha—particularly from the growing suburban areas to the south and west, outside the current Metro service area.





8.1.2 Local Transit Connections

The public outreach process, the experience of peer systems, and the data on location of residents and jobs all point to the need to have stops with a convenient connection to local transit service. This is required to maximize potential ridership for intercity bus service. These connections are needed for first-mile/last-mile access for those not using a private vehicle. To maximize the impact for seamless connections, the







future intercity bus services needs to be at locations where the local transit systems offer the greatest number of connections (main hubs), places with frequent service, and connections to circulators (for first-mile/last-mile access). These locations include:

- StarTran: StarTran's main hub at the Gold's Building - all StarTran routes except those serving UNL meet at this location, including the downtown Trolley Circulator.
- UNL: Transfer points for the UNL StarTran routes (22, 23, 24, and 25), potentially including Vine Street at 17th Street (three of four routes), or at the Nebraska Union on R Street transit (two routes), or Innovation Campus (two routes). A stop at the Union and at Innovation Campus would provide transfer opportunities to all four routes.
- Omaha Metro: Metro has six different hubs, and an intercity route or two will not be able to connect directly to all of them. Clearly a connection to the forthcoming ORBT BRT route is needed (Westroads Mall Transit Center), and the Aksarben Transit Center in central Omaha offers high-frequency connections to services on the south side of the city. A connection to the Green Route downtown circulator is also needed.

It should be noted many of the peer systems are facilitated and successful because the local transit systems have transit centers that offer multiple connecting opportunities and have the capacity for the intercity/commuter connections, while the Nebraska locations are either dispersed or have capacity issues.





8.1.3 Park and Ride Lots

There is a need to develop service alternatives that have park and ride opportunities at the home origin trip ends for both markets. The residential densities in both cities are low, so at the origin end few people will be able to walk to catch the bus. Park and rides need to have ready access to major highways, offer lighting, not be located in the middle of nowhere, and have adequate security.

Transit Cooperative Research Program (TCRP) Report 95, <u>Traveler Response to Transportation System Changes</u>, states the area around a park and ride lot that generates most trips is a parabolic shaped area overlaid on the location of the parking facility or origin¹². This origin area extends from a point 2 to 2.5 miles closer (than the facility) along a highway or major arterial that leads toward the primary destination. This represents the maximum distance a commuter would backtrack to reach a park and ride lot. The catchment area extends beyond the facility on the side away from the destination about 10 miles, with the width extending to 10-12 miles.

FACTORS IN DEVELOPING ALTERNATIVES

- Connect Activity Centers
- Local Transit Connections
- Park and Ride Lots
- Stops in Non-Urbanized Areas
- Intercity Bus Connections
- Need to Serve Same Locations as the NE-Ride Shuttle
- Need to Minimize Number of Stops
- One-Seat Ride
- Operational Factors
- Schedules
- Amenities

Given this information, areas with potential capacity in proximity to the corridor, with maximum coverage from travel sheds of the described shape and size, need to be considered as stop locations for origin stops. Nebraska does not have a statewide park and ride lot program, and so there are no state park and ride lots in the corridor. Park and ride lot locations will also have to be chosen based on availability—including local public facilities or private facilities (such as shopping centers or employment sites) likely to make capacity available (based on previous experience or current usage).

8.1.4 Stops in Non-Urbanized Areas

Stops in the non-urbanized area between the two cities are needed for two reasons. One primary reason is the input from the public outreach process, calling for ways in which residents in this corridor can reach both cities - with particular reference to medical and other services, as well as educational and work trips. The second reason is that a major potential funding source is the FTA Section 5311(f) rural intercity bus assistance program, which allows the use of funding for services that connect rural (non-urbanized) areas to the national network of intercity bus services. No minimum number of non-urbanized stops is defined by FTA, but services that connect urbanized areas to each other with no non-urbanized stops could not be funded under this program.

¹² Transit Cooperative Research Program (TCRP) Report 95, Traveler Response to Transportation System Changes, Chapter 3, "Park and Ride/Pool", p.3-30.





8.1.5 Intercity Bus Connections

Similarly, if Section 5311(f) funding is be used, the proposed service will need to provide a meaningful connection to the national intercity bus network. While FTA does not define the national network, the carriers that are members of the National Bus Traffic Association (NBTA) are generally considered to be the national network. The NBTA is the clearinghouse for interline tickets (which allow travel on the member carriers. In Nebraska, the NBTA members include Express Arrow (Arrow Stage Lines), Burlington Trailways, and Jefferson Lines. Based on this criteria, potential stops include:

- Omaha Interline Bus Terminal (future move to Amtrak station).
- Lincoln Bus Depot (if connections make sense).

Service to these locations may vary by trip and direction, as Express Arrow and Burlington both operate between Omaha and Lincoln as part of their service to Denver. Intercity bus frequencies are currently very low - providing a meaningful connection will depend on timing, as well as service to a shared location. Windstar (operating under the Megabus brand) operates between the Lincoln Amtrak Station and Crossroads Mall in Omaha, but it does not offer interline ticketing or connections with the other carriers. The same is true for Navigator Express, which serves the Fairfield Inn at the Lincoln Airport and Eppley Field.

8.1.6 Serve Same Locations as the NE-Ride Shuttle

In addition to serving the connection points already identified, if this proposed service is to complement (or even eventually become integrated with) the NE-Ride service operated by the School of Engineering, this service would need to serve the same stops so university riders could benefit from the additional span and frequency a complementary (or joint) service could provide. In addition, NE-Ride has already developed a major component of the overall travel market in the corridor, and it would make sense to build on that success.



8.1.7 Minimize Number of Stops

Another factor in the development of service alternatives is the need to make the transit travel time as close to the drive time as possible for most riders. A review of the peer systems led to a target that the bus travel time should be no longer than 150% of the drive time between the stops most likely to be the most popular.

8.1.8 One-Seat Ride

Although connectivity with local transit is important for those who want to use this service but need to connect to more distant stops, a consideration in the service design is to provide a single-seat ride to as many customers as possible - i.e. make transfers to local service easy, but not force everyone to transfer. Many riders will have already made one transfer from their car to the bus, or from a local bus/bike to intercity bus.





8.1.9 Operational Factors

The design of service options must consider operational needs. The following criteria must be considered when selecting endpoints. Not all these factors can be addressed in every case, but these are also important considerations.

8.1.10 Schedules

In general, service frequency should offer relatively frequent service during peak times, with coverage during the mid-day and late enough in the evening for return trips from a full weekday. However, the optimal frequency is also related to the potential demand - service that is too frequent will result in low productivity.

In addition to these general considerations, service design for the Lincoln to Omaha corridor also needs to address input from the public outreach process calling for:

- An early start to allow for arrival at work for 6 a.m. start time.
- Half-hour service in the morning peak frequency as a counter to longer (than auto) travel time.
- Less frequent but continuing service later in the morning to address mid-day university classes and activities.



- An early afternoon return trip for persons traveling for a half day or needing to return home unexpectedly.
- Return trips to allow for a full work day span (8.5 to 9 hours after morning arrivals).
- A late return trip to allow for evening classes (9:30 p.m. or 10:00 p.m.).

8.1.11 Amenities

Although not directly part of the development of service alternatives, based on the peer review and the public outreach process, the proposed service should include:

- On-board Wi-Fi and plug-ins.
- Comfortable coach seating.
- On-board restrooms.
- Bike racks/stops with bikeshare docking stations.
- · Seat belts.







- On-line mobile ticketing apps.
- Real-time vehicle tracking apps.
- Full wheelchair accessibility.
- Baggage space.

The space for baggage and full ADA Part 38 vehicle accessibility are required under FTA's Section 5311(f) program.



8.2 Alternatives Development Process

As can be seen, there are many factors to be considered in the development of a preferred alternative - some are constraints, others are wishful. Taking into account as many of these factors as possible, the study team developed an initial set of basic route alternatives, which were then presented in the second round of public meetings, refined in response to comments, presented again at a third round of public meetings, and then accepted as a preferred alternative. This section presents the initial concepts.

The initial alternatives were developed around two routes, an I-80 "Express" route, and a U.S. Highway 6 "Local" route. As discussed in Chapter 2, the travel demand between Lincoln and Omaha is bi-directional. The I-80 route was presented as eastbound (Lincoln residents to Omaha destinations) and westbound (Omaha residents to Lincoln destinations) with different stops. A single route with the same stops is not feasible due to the need to incorporate park and ride locations at each route's origins. After analyzing the data, it made little sense to deviate the bus's inbound stops at park and ride locations. For example, a morning bus from Lincoln headed for Omaha would have no need to stop at park and ride lots in Omaha



that offer no walk access to jobs and no transit connections - it would simply cost time and be detrimental to ridership. For each of the I-80 routes, westbound and eastbound, and the U.S. Highway 6 route, two sets of bus options were developed.

8.2.1 I-80 Express Routes

8.2.1.1 I-80 Express Lincoln to Omaha Eastbound via Westroads

One of the Eastbound (Lincoln to Omaha) routes is via the Westroads Mall Transit Center. The non-urbanized stop is located at SAC Museum in Ashland with no additional stops until Westroads Mall. Figure 22 presents the eastbound route vial Westroads Mall, with Figure 23 presenting the proposed local Omaha stops. Table 11 lists the proposed bus stops for the eastbound route via Westroads Mall.





Table 11. I-80 Express Eastbound Proposed Stops via Westroads Mall

Proposed Bus Stops								
✓ Gold's Building StarTran Transfer Center	✓ Westroads Mall Transit Center							
✓ University of Nebraska Lincoln	✓ University of Nebraska Omaha Campus							
✓ Nebraska Innovation Campus	✓ University of Nebraska Medical Center							
✓ Arrow Stage Lines (Park and Ride)	✓ Burlington Trailways							
✓ Ashland Park and Ride								

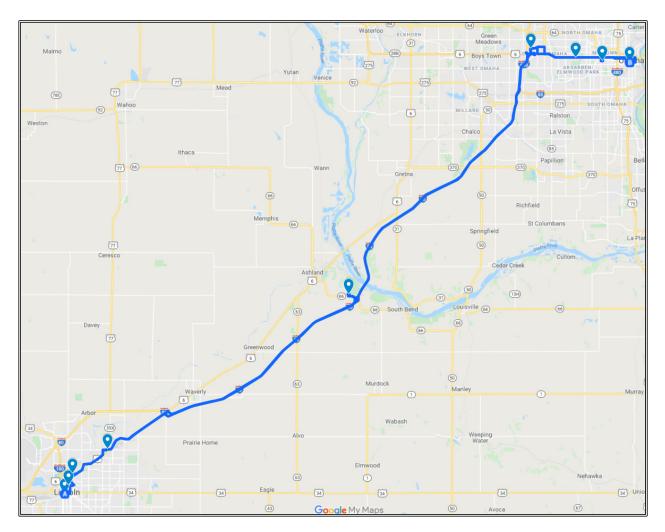


Figure 22. I-80 Express Lincoln to Omaha Eastbound via Westroads Mall Transit Center





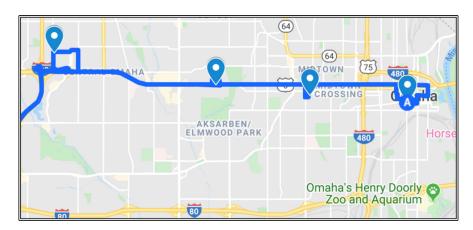


Figure 23. I-80 Express via Westroads Mall Transit Center Omaha Stops

8.2.1.2 I-80 Express Lincoln to Omaha Eastbound via Aksarben Transit Center

The second Omaha option for the Eastbound (Lincoln to Omaha) route included serving the Ashland Park and Ride location as the non-urbanized area stop. Inbound buses would then make their initial stop at the Aksarben Transit Center, then serve the UNO campus and the UNMC before heading into downtown Omaha. This alternative routing at the Omaha end of the route is shown in Figure 24, and the list of stops for this routing is presented in Table 12.

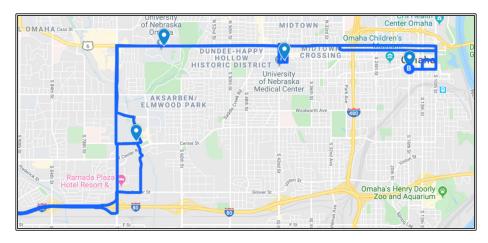


Figure 24. I-80 Express via Aksarben Village Transit Center Omaha Stops





Table 12. I-80 Express Eastbound Proposed Stops via Aksarben Transit Center

Propose	d Bus Stops
✓ Gold's Building StarTran Transfer Center	✓ Aksarben Transit Center
✓ University of Nebraska Lincoln	✓ University of Nebraska Omaha Campus
✓ Nebraska Innovation Campus (PNR)	✓ University of Nebraska Medical Center
✓ Arrow Stage Lines (Park and Ride)	✓ Burlington Trailways
✓ Ashland Park and Ride	

8.2.1.3 I-80 Express Omaha to Lincoln Westbound via Westroads Mall

The first Westbound (Omaha to Lincoln) route traveled via the Westroads Mall Transit Center (Figures 25 and 26), and then south on I-680 to additional park and ride opportunities. Table 13 lists the proposed bus stop locations for this route.

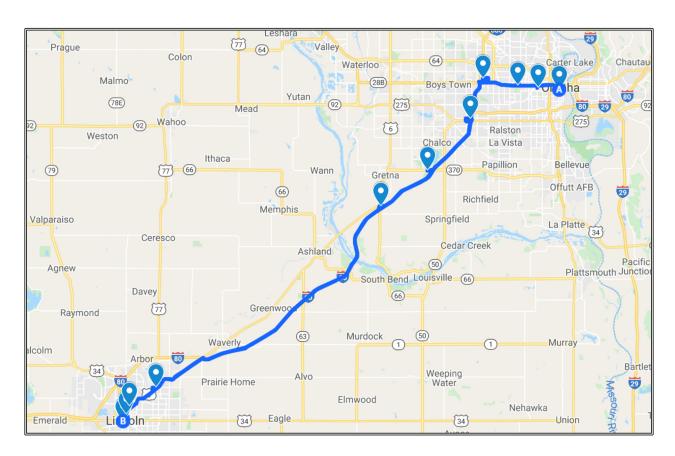


Figure 25. I-80 Express Omaha to Lincoln Westbound via Westroads Mall Transit Center





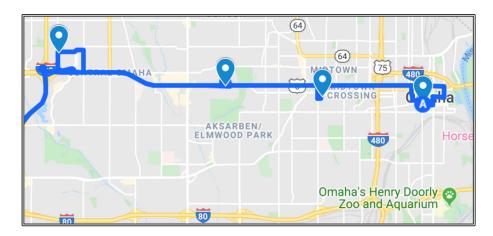


Figure 26. I-80 Express via Westroads Mall Transit Center Omaha Bus Stops

Table 13. I-80 Express Westbound Proposed Stops via Westroads Mall Transit Center

	Proposed Bus Stops								
✓	Burlington Trailways	√	Nebraska Crossing Outlet Mall Park and Ride						
✓	University of Nebraska Medical Center	✓	Arrow Stage Lines (Park and Ride)						
✓	University of Nebraska Omaha Campus	✓	Nebraska Innovation Campus						
✓	Westroads Mall Transit Center	✓	University of Nebraska Lincoln						
✓	275 Park and Ride (King of Kings Church)	✓	Gold's Building StarTran Transfer Center						
✓	Chalco Park and Ride								

8.2.1.4 I-80 Express Omaha to Lincoln Westbound via Aksarben Village

The second option routes the bus through UNMC and the Aksarben Village area, offering connections to the Metro transit center there along with stops at the same locations served by the UNL NE-Ride - but no park and ride opportunities such as those available at Westroads Mall Transit Center. This alternative routing in Omaha is shown in Figure 27 with the list of proposed stops in Table 14.





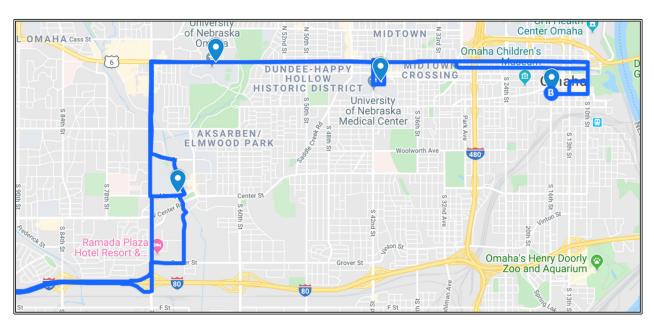


Figure 27. I-80 Express via Aksarben Transit Center Omaha Bus Stops

Table 14. I-80 Express Westbound Proposed Stops via Aksarben Transit Center

Proposed Bus Stops									
✓ Burlington Trailways	√ Nebraska Crossing Outlet Mall Park and Ride								
✓ University of Nebraska Medical Center	✓ Arrow Stage Lines (Park and Ride)								
✓ University of Nebraska Omaha Campus	✓ Nebraska Innovation Campus								
✓ Aksarben Transit Center	✓ University of Nebraska Lincoln								
✓ Chalco Park and Ride	✓ Gold's Building StarTran Transfer Center								

8.2.2 I-80 Express Lincoln Alternative Stops

At the Lincoln end of the I-80 Express routes, there were several discussions on a Southeast Lincoln Extension. The existing data indicated Omaha trip origins and destination in southeast Lincoln, therefore an option was developed for an extension route to the CHI Nebraska Heart Hospital with a park and ride opportunity yet to be defined. Figure 28 presents this proposed routing, and Table 15 presents the list of additional stops on the extension.





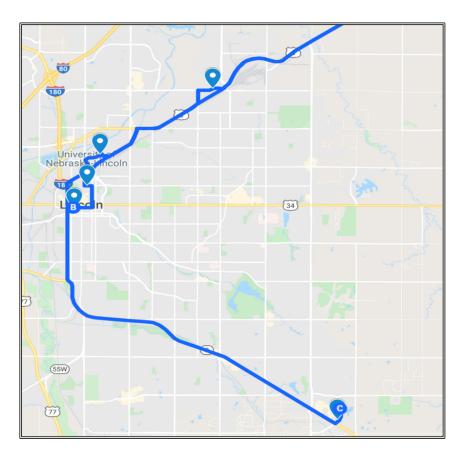


Figure 28. I-80 Express Southeast Lincoln Extension

Table 15. I-80 Express Proposed Stops for Southeast Lincoln Extension

	Proposed Bus Stops
✓	Gold's Building StarTran Transfer Center
✓	NDOT
✓	CHI Health Nebraska Heart Hospital
✓	NDOT
✓	Gold's Building StarTran Transfer Center

8.2.3 U.S. Highway 6 Local Service Route

In response to input regarding needs for access in the non-urbanized towns between Lincoln and Omaha, a second corridor route was developed for consideration. Based on this input, the major focus of this route is to provide access to both Lincoln and Omaha from these towns for medical, educational and other non-work trip purposes, particularly for senior and youth populations. This route is designed to operate with the





same stops in both directions, operated on U.S. Highway 6, make local stops (not designed to minimize travel time), and to provide access to many of the same key destinations, but also additional hospital and shopping destinations.

8.2.3.1 U.S. Highway 6 Local Service via Westroads Mall

Figure 29 presents the proposed U.S. Highway 6 route with routing in Omaha via Westroads Mall, and Figure 30 presents the Omaha segment of that route in more detail. Table 16 presents the stop locations for that route.

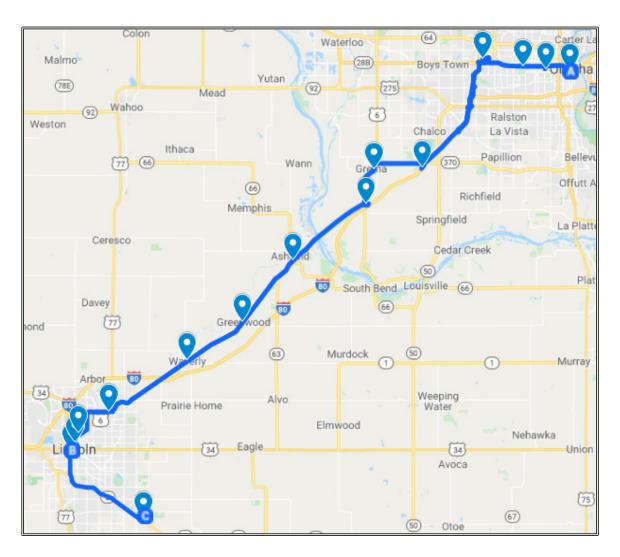


Figure 29. U.S. Highway 6 Local Route via Westroads Mall Transit Center





Table 16. U.S. Highway 6 Local Proposed Bus Stops via Westroads Mall Transit Center

Proposed Bus Stops								
✓ Burlington Trailways	✓ Greenwood							
✓ University of Nebraska Medical Center	✓ Waverly							
✓ University of Nebraska Omaha Campus	✓ Arrow Stage Lines (Park and Ride)							
✓ Westroads Mall Transit Center	✓ Nebraska Innovation Campus							
 ✓ Walmart Supercenter 	✓ University of Nebraska Lincoln							
✓ Gretna	✓ Gold's Building StarTran Transfer Center							
✓ Nebraska Crossing Outlet Mall Park and Ride	✓ CHI Health Nebraska Heart Hospital							
✓ Ashland								

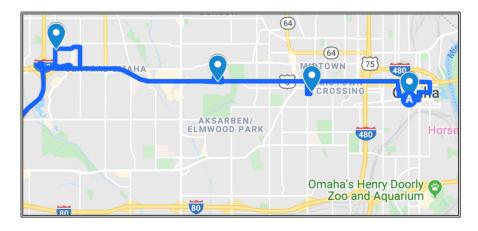


Figure 30. U.S. Highway 6 Omaha Local Stops via Westroads Mall Transit Center

8.2.3.2 U.S. Highway 6 Local Service via Aksarben Transit Center

Figure 31 presents the proposed U.S. Highway 6 route with routing in Omaha via the Aksarben Transit Center, and Figure 32 presents the Omaha segment of that route in more detail. Table 17 presents the stop locations for that route.





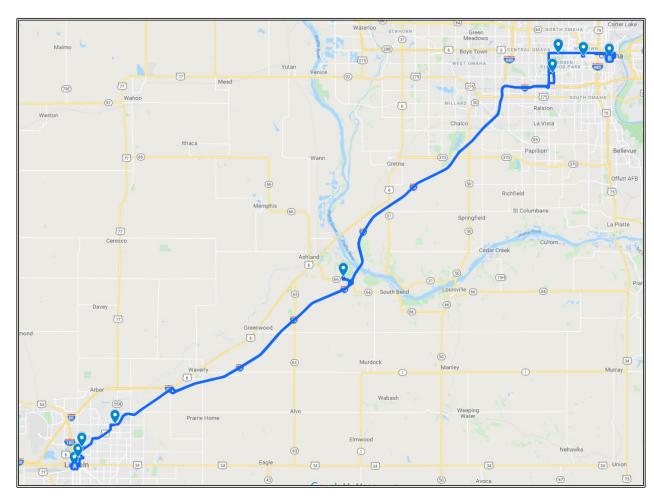


Figure 31. U.S. Highway 6 Local Route via Aksarben Village Transit Center

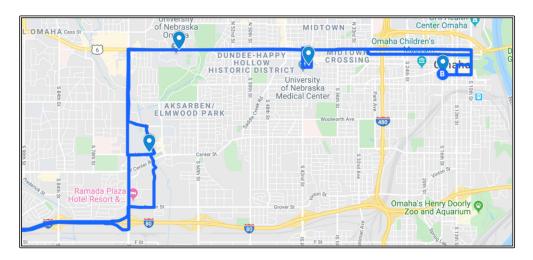


Figure 32. U.S. Highway 6 Omaha Local Stops via Aksarben Transit Center





Table 17. U.S. Highway 6 Local Proposed Bus Stops via Aksarben Transit Center

Proposed Bus Stops									
✓ Burlington Trailways	✓ Greenwood								
✓ University of Nebraska Medical Center	✓ Waverly								
✓ University of Nebraska Omaha Campus	✓ Arrow Stage Lines (Park and Ride)								
✓ Aksarben Transit Center	✓ Nebraska Innovation Campus								
 ✓ Walmart Supercenter 	✓ University of Nebraska Lincoln								
✓ Gretna	✓ Gold's Building StarTran Transfer Center								
✓ Nebraska Crossing Outlet Mall Park and Ride	✓ CHI Health Nebraska Heart Hospital								
✓ Ashland									

8.2.4 Special Event Service

In order to ensure cost estimates included some resources for special event services, they were included as an option in the initial proposals - without being precisely defined as to route and schedule, which would depend on the events.

8.3 Schedule Frequency

Schedule frequency was considered when the initial alternatives' options were developed. The initial frequency proposals were based to some extent on schedules at peer systems, and from preferences gleaned from the public outreach process.

The I-380 Express between Cedar Rapids/Iowa City is a 30-mile route that links higher education, medical and urban destinations. Its schedule offers 30-minute peak and 60-minute base (mid-day) service. Another example is the Bustang service between Fort Collins and Denver, which is a 65-mile long route serving employment and higher education trips. It offers five peak hour trips on weekdays, with a mid-day trip between the peaks.

8.4 Frequency Alternatives

Table 18 demonstrates three alternative schedule patterns developed to present service options and provide a basis for preliminary cost estimates. The high service level option is from 4:30 a.m. to 6:30 p.m., with service every thirty minutes during peak times and hourly service in between. It has been designed to incorporate the UNL NE-Ride schedules. A second option retains the 30-minute peak service times but reduces midday service to three trips before ramping up again for the evening peak. It has the same span of service as the high option. A third, less costly option provides a bus every 45-minutes in the morning and evening peak hours, with only two midday trips.

For all trips, it was assumed an end-to-end travel time of two hours and fifteen minutes would be needed to make all stops and allow for 15 percent recovery time on each trip.





Table 18. Alternative Schedule Options

30-min Peak / 60-min Base			30-min Peak	(/ 2 ı	midday trips	45-min Peak / 2 midday trips		
4:30 a.m.	\rightarrow	6:45 a.m.	4:30 a.m.	\rightarrow	6:45 a.m.	4:30 a.m.	\rightarrow	6:45 a.m.
5:00 a.m.	\rightarrow	7:15 a.m.	5:00 a.m.	\rightarrow	7:15 a.m.	5:15 a.m.	\rightarrow	7:30 a.m.
5:15 a.m.	\rightarrow	7:45 a.m.	5:15 a.m.	\rightarrow	7:45 a.m.	5:45 a.m.	\rightarrow	8:15 a.m.
5:45 a.m.	\rightarrow	8:15 a.m.	5:45 a.m.	\rightarrow	8:15 a.m.	6:15 a.m.	\rightarrow	8:45 a.m.
6:15 a.m.	\rightarrow	8:45 a.m.	6:15 a.m.	\rightarrow	8:45 a.m.			
7:30 a.m.	\rightarrow	9:45 a.m.				9:30 a.m.	\rightarrow	11:45 a.m.
8:30 a.m.	\rightarrow	10:45 a.m.	9:30 a.m.	\rightarrow	11:45 a.m.	3:30 p.m.	\rightarrow	5:45 p.m.
9:30 a.m.	\rightarrow	11:45 a.m.	1:30 p.m.	\rightarrow	3:45 p.m.		\rightarrow	
10:30 a.m.	\rightarrow	12:45 p.m.	3:30 p.m.	\rightarrow	5:45 p.m.	4:30 p.m.	\rightarrow	7:15 p.m.
11:30 a.m.	\rightarrow	1:45 p.m.				5:00 p.m.	\rightarrow	7:45 p.m.
12:30 p.m.	\rightarrow	2:45 p.m.	4:30 p.m.	\rightarrow	7:15 p.m.	5:45 p.m.	\rightarrow	8:15 p.m.
1:30 p.m.	\rightarrow	3:45 p.m.	5:00 p.m.	\rightarrow	7:45 p.m.	6:30 p.m.	\rightarrow	8:45 p.m.
2:30 p.m.	\rightarrow	4:45 p.m.	5:45 p.m.	\rightarrow	8:15 p.m.			
3:30 p.m.	\rightarrow	5:45 p.m.	6:30 p.m.	\rightarrow	8:45 p.m.			
4:00 p.m.	\rightarrow	6:30 p.m.						
4:30 p.m.	\rightarrow	7:15 p.m.						
5:00 p.m.	\rightarrow	7:45 p.m.						
5:45 p.m.	\rightarrow	8:15 p.m.						
6:30 p.m.	\rightarrow	8:45 p.m.						

8.5 Development of a Preferred Alternative

Through the public outreach process, including public meetings, Facebook social media page, online surveys of stakeholders and employers, stakeholder meetings and surveys, and the Technical Advisory Committee, input was requested on the proposed alternative routes, stops and schedules. Based on this feedback, the study team worked on revising the original proposals to develop a preferred alternative, which is presented in the next chapter. The changes in the proposed alternatives were made in response to input and analysis, as described below.

8.5.1 Omaha Stop Locations - Eastbound and Westbound I-80 Route Concept

Preferred Option: Serve Aksarben Transit Center with morning eastbound, afternoon westbound service, and Westroads Mall Transit Center with morning westbound and afternoon eastbound service.

The initial concepts included an Omaha stop at Westroads Mall for the transit connection to forthcoming ORBT service and other Metro routes, with service paralleling ORBT to serve UNO, UNMC, and downtown. It was determined the Westroads Mall area does not offer significant walkable employment to warrant being an inbound morning destination, but it makes sense as a morning park and ride lot for outbound passengers.





Aksarben Transit Center area offers local transit connections, walkable opportunities for employment, and higher density residential, similar to the existing NE Ride university service today. For that reason, it was decided the morning eastbound service (and its afternoon westbound mirror service) should serve Aksarben Village Transit Center, which also offers the UNO shuttle to the UNO main campus. This routing also allows more direct service through the UNMC campus on 42nd Street, reducing walk distances from Dodge Street.



For persons living in Omaha and going to Lincoln, it makes sense to have the westbound morning buses go through the Westroads Mall area as a park and ride opportunity. Morning westbound buses from Omaha also need to provide an opportunity for UNO students, staff, and faculty to catch the bus, and so a westbound routing leaving downtown with a stop at 24th Street (connection to Metro high frequency north-south routes and the Creighton Shuttle), with stops at UNMC, UNO, and Westroads Mall are included in the preferred option.

8.5.2 Single I-80 Route Serving All Stops Both Ways

Preferred Option: Two separate routes, one designed to serve Lincoln residents going to Omaha, and one designed to serve Omaha residents going to Lincoln.

In the initial route alternative concept, the I-80 route already was divided into a westbound and eastbound version with different stops, reflecting the fact the market is bi-directional, and it would make little sense to stop at park and ride lots near destinations where there is no walkable adjacent land use and no local transit connections.

Following the presentation of the original options, it became clear that a major concern of potential users was the need to be sure they could return to their boarding point on the return trip, which was not clear from the way in which the schedules were explained.

Typically commuter bus services operate in a directional fashion, with origins at outlying park and ride lots and service to a downtown core where passengers are dropped off, and the service then operates in the opposite direction in the afternoon serving the same stops. The solution in this case is to treat each of the bi-directional markets in this same way, branding each as a separate route serving the same set of stops in the morning and afternoon. This makes even more sense given the desire to have eastbound morning buses serve Aksarben Transit Center as a destination, with westbound morning buses serving Westroads Mall as a park and ride origin.





8.5.3 Southeast Lincoln Extension

Preferred Option: No extension beyond the State Capitol and State Office Building for all options except potentially the U.S. Highway 6 Local.

Service to Lincoln medical destinations is desired but is not likely to be a major focus for employment and university market groups. It was determined the extension from downtown Lincoln to the CHI Health Centers Heart Hospital would add at least 45



minutes round-trip to each cycle of the bus, and would not be attractive to southeast Lincoln residents as they would have to sit on the bus while it made at least three Lincoln stops before even heading toward Omaha. In addition, existing StarTran service, Route 40, offers a transfer opportunity at the Gold's Building with 30-minute headways in the peak and hourly service off-peak.

8.5.4 Intermediate Stops Considered - Nonurbanized Needs

Preferred Option: Separate local route on U.S. Highway 6 with additional medical and shopping stops, with morning, mid-day, and late afternoon/evening services in each direction.

Service on U.S. Highway 6 as an alternative to I-80 express service was considered as a way to serve the intermediate towns. However, it was not favored due to the number of stops and the potential for delay on the two-lane roadway due to weather and seasonal slow vehicles related to agriculture. Yet the need for service at intermediate points was evident from the public input - but with less focus on the work trip and more on medical, shopping, educational and social trip purposes.

The preferred solution is morning, mid-day, and late afternoon local service on U.S. Highway 6, with extensions to medical destinations (UNMC, VA Hospital). This third route would provide end to end service, with connections in Lincoln and Omaha. It offers a significant increase in mobility options to this region, especially when combined with non-urbanized stops on the I-80 service at the SAC Museum park and ride in Ashland and park and ride options at Nebraska Crossing Outlets.

8.5.5 Connections to National Intercity Bus Network

Preferred Option: Make connections to/from national intercity bus network schedules at the Omaha bus station, intercity bus services at the Lincoln Bus Depot from the U.S. Highway 6 local route if schedules allow.

Evaluation of national network intercity bus schedules revealed that Express Arrow and Burlington Trailways provide their own feeder connection from Omaha to Lincoln for westbound services, and the Windstar service is from Omaha to Lincoln - so there is no need to connect at the Intercity Bus Depot in Lincoln, except for the U.S. Highway 6 local route providing intermediate town connections to westbound intercity bus services. On the eastbound I-80 routes, all intercity bus connections should be made in Omaha at the intercity bus station, whether at the current Bus Terminal or the future consolidation at the Amtrak station.





8.5.6 Public Desire for Service to Eppley

Preferred Option: Extend eastbound routes to serve Eppley Airport on all schedules that do not have an intercity bus connection in Omaha.

Because of the Section 5311(f) funding source, the priority is connections to the national intercity network bus schedules - but from the 10th and Dodge Street endpoint the travel time to the Amtrak station is almost the same as the travel time to/from Eppley, and so trips not making intercity bus connections could serve Eppley. This is primarily for Lincoln customers going to



or returning from Eppley, not Omaha local customers. Based on public input, there is little demand for service from Omaha to the Lincoln Airport, and for residents of Lincoln, there is service provided to the Lincoln Airport by StarTran.

8.5.7 Saturday/Special Events Service

Preferred Option: Include Saturday service in the overall program, but at a lower frequency, for cost estimation purposes. Special events schedules would need to be integrated into the Saturday public schedules.



Public input suggested many potential destinations for weekend service, including both Saturday and Sunday service. Key special events that could support bus service include Husker home football games in Lincoln, and the Collegiate World Series in Omaha. If FTA Section 5311 or 5311(f) funding is used, special event routes would have to be scheduled public routes, not charters, but at this point it is not possible to develop schedules for these future events. In order to address special events and the

desired Saturday services, Saturday schedules should be included in the preferred alternative, but with frequencies and times reflecting weekend travel needs.

Based on these considerations arising from the public input and analysis, a preferred alternative was developed as a basis for establishing costs. This is presented in the next chapter.





9. Preferred Alternative

The initial alternatives presented in the previous chapter were modified in response to input received during the public meetings, from the TAC, key stakeholders, and online surveys. A second series of meetings in January presented further development of those basic alternatives, and a third round of meetings presented this preferred alternative, which was refined and adjusted in response to the final comments. This chapter presents the preferred alternative in terms of routes (stops), timetables (frequencies), and estimated operating cost. It should be noted this is a plan, and final routes have not been run with a bus to test times and stop access. A final operational plan will be completed in the next study phase, which may result in changes before the service is open to the public.

9.1 Routes and Timetables

To alleviate confusion regarding the I-80 services, two distinct routes were developed - one for Lincoln residents going to Omaha destinations (branded for now as the Red Route), and a second route for Omaha residents destined for Lincoln (branded as the Black Route). The U.S. Highway 6 local service, previously presented as a separate route, has been branded as the Gold Route. Each route is designed to bring riders back to their origin point. The proposed timetables are presented together with the route map to aid in understanding the service pattern.

9.1.1 I-80 Express Lincoln to Omaha Red Route and Return

Figure 33 presents a map of the Red Route, with insets showing Lincoln pickup points and Omaha destination routing in more detail. Table 19 presents a list of the stop locations. There are four major changes from the earlier alternatives:

- Service from the Gateway Mall on O Street in Lincoln, providing a park and ride opportunity for east and south Lincoln.
- A stop at the corner of 84th Street and Cornhusker Highway (U.S. Highway 6) in Lincoln, where the U-Stop Convenience Store has an existing park and ride lot.
- Service to Aksarben Transit Center, PKI, and UNMC at 42nd and Dewey both ways.
- Service to/from Eppley Airport on trips that do not make either an outbound or inbound intercity bus (or rail) connection at the downtown Omaha Intercity Bus/Amtrak station.

Also as noted in the stop list, there are some stops shared with the Black and Gold routes that could potentially be used by a Red Route rider wishing to return to Lincoln earlier in the day—particularly from UNO to UNL or downtown Lincoln - even though not all the stops would be served.





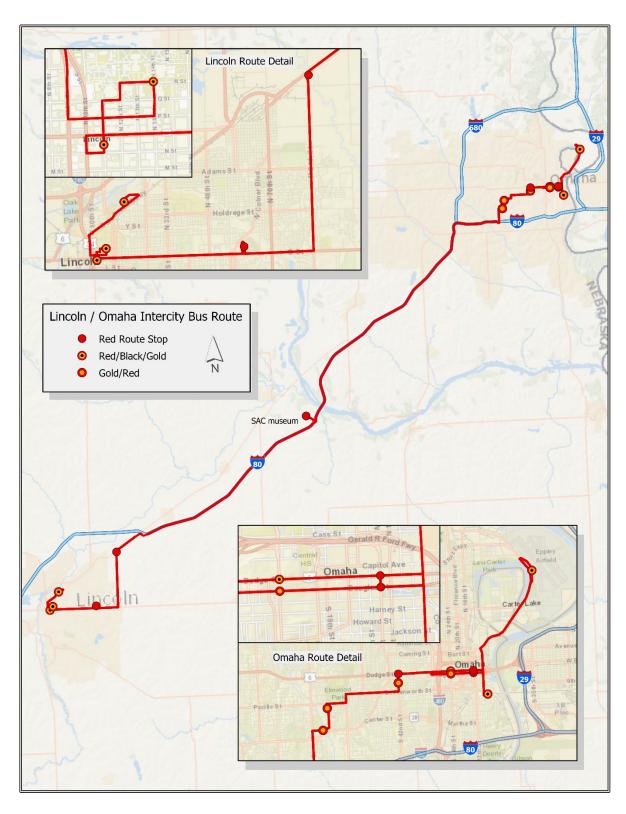


Figure 33. I-80 Express Lincoln to Omaha Red Route and Return Map





Table 19. I-80 Express Lincoln to Omaha Red Route and Return Stops

Stop Location	Purpose	Park and Ride?	Transit Connections	Shared Stop	Comments
UNL Innovation Campus	UNL Campus, Bus Layover Point	Yes	StarTran Routes 22 and 23	Red/Black/Gold	Connections to UNL East Campus
UNL Union	UNL main campus stop	No	StarTran Routes 24 and 25	Red/Black Gold	Connections to UNL East Campus
Gold's Building StarTran Hub	Connections with StarTran network, access for downtown residents	No	StarTran Routes 13,27, 40, 41, 42, 44, 46, 49, 51, 52,53, 54, 55 (Downtown Trolley), and 56	Red/Black Gold	Main StarTran transfer point, Downtown Trolley
Gateway Mall	Park and ride for central/east Lincoln	Yes	StarTran 44 and 48	Red	
U-Stop Convenience Store 84 th and U.S. Highway 6	Existing park and ride location	Yes	None	Red	
SAC Museum	Museum employees, park and ride for Ashland area	Yes	None	Red	Non-urbanized area stop location
Aksarben Transit Center	Aksarben Village	No	Metro Transit Routes 18,55,11,15, 13	Red/Gold	Office, medical, higher density residential
Peter Kiewit Institute, UNO	UNO South Campus	No	UNO Campus Shuttle, NE- Ride	NE-Ride	Engineering School
42 nd and Dewey	UNMC	No	Metro Transit 3 and 15	Red/Gold	
40 th and Dodge	ORBT stop	No	ORBT, Metro 92 and 98	Red/Black/Gold	
24 th and Douglas/Dodge	Creighton University	No	Metro Transit 24, Creighton Shuttle	Red/Black/Gold	
14 th and Douglas/Dodge	Downtown Omaha	No	Metro Green Downtown Shuttle, Metro 4, 13 Y, B and 95	Red/Black/Gold	Downtown employment stop, shuttle connection
Eppley Airport	Airport	No	None	Red/Black/Gold	On trips with no intercity bus connection
Intercity Bus/Amtrak Station	Connections to national network of intercity bus services	No	Burlington Trailways, Express Arrow, Jefferson Lines to Kansas	Red/Black/Gold	Connections to/from intercity carriers to more distant points





Table 20 presents the proposed timetable for the Red Route. The timetable reflects the service pattern in which trips operate from Lincoln to Omaha until mid-day, and then serve the same stops in reverse order beginning with the 1:00 p.m. departure from Omaha. As requested by the public, service in the peak hours

is every 30 minutes, beginning with an early trip at 4:30 a.m., with less frequent service mid-morning to mid-afternoon. A late evening departure from Omaha is shown at 9:30 p.m. It could potentially be moved even later, but that time allows the daily service to end just before midnight. With this service pattern there are 15 one-way trips between cities each day. This frequency and schedule pattern is similar to the "high" option found in the earlier alternatives. This was chosen in part to increase the attractiveness of a service that will, by definition, have a longer travel time than driving.



Table 20. I-80 Express Lincoln to Omaha Red Route Weekdays Timetable and Return

Eastbound – A.M.	Departures								
UNL- Innovation Campus	4:30 a.m.	5:00 a.m.	5:30 a.m.	6:00 a.m.	6:30 a.m.	7:30 a.m.	9:30 a.m.	11:30 a.m.	
UNL-Student Union	4:36 a.m.	5:06 a.m.	5:36 a.m.	6:06 a.m.	6:36 a.m.	7:36 a.m.	9:36 a.m.	11:36 a.m.	
Gold's-StarTran Hub	4:44 a.m.	5:14 a.m.	5:44 a.m.	6:14 a.m.	6:44 a.m.	7:44 a.m.	9:44 a.m.	11:44 a.m.	
Gateway Mall/Park and Ride	4:59 a.m.	5:29 a.m.	5:59 a.m.	6:29 a.m.	6:59 a.m.	7:59 a.m.	9:59 a.m.	11:59 a.m.	
84th and Cornhusker Park and Ride	5:15 a.m.	5:45 a.m.	6:15 a.m.	6:45 a.m.	7:15 a.m.	8:15 a.m.	10:15 a.m.	12:15 p.m.	
Ashland-SAC Museum	5:42 a.m.	6:12 a.m.	6:42 a.m.	7:12 a.m.	7:42 a.m.	8:42 a.m.	10:42 a.m.	12:42 p.m.	
Metro Aksarben Transit Center	6:10 a.m.	6:40 a.m.	7:10 a.m.	7:40 a.m.	8:10 a.m.	9:10 a.m.	11:10 a.m.	1:10 p.m.	
UNO Engineering School/PKI	6:16 a.m.	6:46 a.m.	7:16 a.m.	7:46 a.m.	8:16 a.m.	9:16 a.m.	11:16 a.m.	1:16 p.m.	
UNMC-42nd and Dewey	6:26 a.m.	6:56 a.m.	7:26 a.m.	7:56 a.m.	8:26 a.m.	9:26 a.m.	11:26 a.m.	1:26 p.m.	
24th and Douglas	6:34 a.m.	7:04 a.m.	7:34 a.m.	8:04 a.m.	8:34 a.m.	9:34 a.m.	11:34 a.m.	1:34 p.m.	
14th and Douglas	6:42 a.m.	7:12 a.m.	7:42 a.m.	8:12 a.m.	8:42 a.m.	9:42 a.m.	11:42 a.m.	1:42 p.m.	
Amtrak/Intercity Bus Station	\	1	7:50 a.m.	Ţ	Ţ	Ţ	11:50 a.m.	1:50 p.m.	
Eppley Airport	6:50 a.m.	7:20 a.m.	\downarrow	8:20 a.m.	8:50 a.m.	9:50 a.m.			





Westbound - P.M.	Departures								
Eppley Airport LV	1:00 p.m.			5:30 p.m.	6:00 p.m.	6:30 p.m.			
Amtrak/Intercity Bus Station LV	Ţ	3:00 p.m.	5:00 p.m.	↓	Ţ	Ţ	9:30 p.m.		
14th and Douglas	1:08 p.m.	3:08 p.m.	5:08 p.m.	5:38 p.m.	6:08 p.m.	6:38 p.m.	9:38 p.m.		
24th and Douglas	1:16 p.m.	3:16 p.m.	5:16 p.m.	5:46 p.m.	6:16 p.m.	6:46 p.m.	9:46 p.m.		
UNMC-42nd and Dewey	1:24 p.m.	3:24 p.m.	5:24 p.m.	5:54 p.m.	6:24 p.m.	6:54 p.m.	9:54 p.m.		
UNO Engineering School/PKI	1:34 p.m.	3:34 p.m.	5:34 p.m.	6:04 p.m.	6:34 p.m.	7:04 p.m.	10:04 p.m.		
Metro Aksarben Transit Center	1:40 p.m.	3:40 p.m.	5:40 p.m.	6:10 p.m.	6:40 p.m.	7:10 p.m.	10:10 p.m.		
Ashland-SAC Museum	2:08 p.m.	4:08 p.m.	6:08 p.m.	6:38 p.m.	7:08 p.m.	7:38 p.m.	10:38 p.m.		
84th and Cornhusker Park and Ride	2:35 p.m.	4:35 p.m.	6:35 p.m.	7:05 p.m.	7:35 p.m.	8:05 p.m.	11:05 p.m.		
Gateway Mall/Park and Ride	2:51 p.m.	4:51 p.m.	6:51 p.m.	7:21 p.m.	7:51 p.m.	8:21 p.m.	11:21 p.m.		
Gold's-StarTran Hub	3:06 p.m.	5:06 p.m.	7:06 p.m.	7:36 p.m.	8:06 p.m.	8:36 p.m.	11:36 p.m.		
UNL-Student Union	3:12 p.m.	5:12 p.m.	7:12 p.m.	7:42 p.m.	8:12 p.m.	8:42 p.m.	11:42 p.m.		
UNL- Innovation Campus	3:20 p.m.	5:20 p.m.	7:20 p.m.	7:50 p.m.	8:20 p.m.	8:50 p.m.	11:50 p.m.		

9.1.2 I-80 Express Omaha to Lincoln Black Route and Return

This is a separate route designed to transport Omaha residents to Lincoln destinations. Other than the branding as a separate route, the major changes from previous alternatives include:

- Omaha routing via the Westroads Mall Transit Center both ways, primarily because of the
 availability of parking, but also as link to west side Metro transit routes and the forthcoming ORBT
 bus rapid transit service. Although the Black Route overlaps ORBT between Westroads and
 downtown, ORBT has more intermediate stop locations. These buses would not carry any local
 passengers between Westroads Transit Center and downtown.
- Service to/from Eppley Airport on trips that do not make either an outbound or inbound intercity bus (or rail) connection at the downtown Omaha Intercity Bus/Amtrak station.
- The final routing for the south west side of Omaha for a park and ride opportunity is located at the City of La Vista parking lot at 12703 Westport Pkwy, La Vista, NE 68138, at the Cabela's building.
 The City has already agreed to make parking at this location available. This location allows





- replacement of the two previously proposed stops at King of Kings Church and the Wal-Mart Super Center. This change also saves travel time and ensures the availability of parking.
- Elimination of inbound stops at the Lincoln Bus Depot, with direct service to downtown Lincoln stops. Express Arrow and Burlington Trailways already provide direct express connections from Omaha to Lincoln, as Lincoln is a stop on these Omaha-Denver schedules.

The map of the Black Route, Omaha to Lincoln with insets showing Omaha and Lincoln stops, is presented in Figure 34. Table 21 presents a list of Black Route stops.

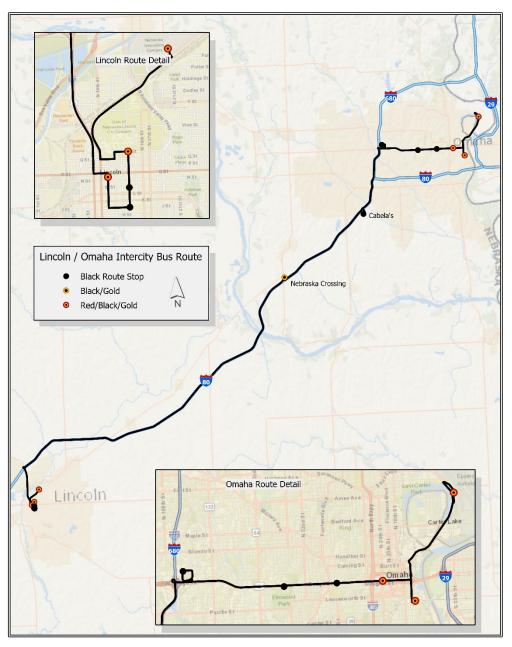


Figure 34. I-80 Express Omaha to Lincoln Black Route and Return Map





Table 21. I-80 Express Omaha to Lincoln Black Route and Return Stops

Stop Location	Purpose	Park and Ride?	Transit Connections	Shared Stop	Comments
Intercity Bus/Amtrak Station	Connections to national network of intercity bus services	No	Burlington Trailways, Express Arrow, Jefferson Lines to Kansas	Red/Black/Gold	Connections to/from intercity carriers to more distant points
Eppley Airport	Airport	No	None	Red/Black/Gold	On trips with no intercity bus connection
24 th and Douglas/Dodge	Creighton University	No	Metro Transit 24, Creighton Shuttle	Red/Black/Gold	
42nd and Dodge	UNMC	No	ORBT, Metro 92 and 98		
70th and Dodge	UNO Main Campus	No	ORBT, Metro 92 and 98, UNO Campus Shuttle		Walk to shuttle to connect with Red or Gold at PKI
Westroads Transit Center (Westroads Mall)	Park and ride opportunity for north and west Omaha	Yes	ORBT, Metro 4, 5, 14		
City of La Vista Park and Ride Lot (12703 Westport Pkwy, La Vista, NE 68138	Park and ride opportunity for west and south Omaha	Yes	None		
Nebraska Crossing Outlets	Park and ride opportunity for Gretna area	Yes	None		Nonurbanized area stop
Gold's Building StarTran hub	Connections with StarTran network, access for downtown residents	No	StarTran Routes 13,27, 40, 41, 42, 44, 46, 49, 51, 52,53, 54, 55 (Downtown Trolley), and 56	Red/Black Gold	Main StarTran transfer point, Downtown Trolley
State Capitol	Key Lincoln destination	No	StarTran Downtown Trolley		
UNL Union	UNL main campus stop	No	StarTran Routes 24 and 25	Red/Black Gold	Connections to UNL East Campus
UNL Innovation Campus	UNL Campus, Bus Layover Point	Yes	StarTran Routes 22 and 23	Red/Black/Gold	Connections to UNL East Campus





Table 22. I-80 Express Omaha to Lincoln Black Route Weekdays Timetable and Return

Westbound – A.M.				Depart	ures			
Eppley Airport						6:58 a.m.		10:58 a.m.
Amtrak/Intercity Bus Station LV	4:30 AM	5:00 AM	5:30 AM	6:00 AM	6:30 AM	1	9:00 a.m.	1
24th and Dodge	4:41 a.m.	5:11 a.m.	5:41 a.m.	6:11 a.m.	6:41 a.m.	7:09 a.m.	9:11 a.m.	11:09 a.m.
UNMC-42nd and Dodge	4:46 a.m.	5:16 a.m.	5:46 a.m.	6:16 a.m. 6:46 a.m.		7:14 a.m.	9:16 a.m.	11:14 a.m.
UNO-70th and Dodge	1 1.53 a m 5.23 a m 5.53 a m		5:53 a.m.	6:23 a.m.	6:53 a.m.	7:21 a.m.	9:23 a.m.	11:21 a.m.
Westroads (Park and Ride)	5:06 a.m.	5:36 a.m.	6:06 a.m.	6:36 a.m.	7:06 a.m.	7:34 a.m.	9:36 a.m.	11:34 a.m.
City of La Vista Park & Ride (Cabela's)	5:16 a.m.	5:46 a.m.	6:16 a.m.	6:46 a.m.	7:16 a.m.	7:44 a.m.	9:46 a.m.	11:44 a.m.
Nebraska Crossing Mall (P&R)	5:30 a.m.	6:00 a.m.	6:30 a.m.	7:00 a.m.	7:30 a.m.	7:58 a.m.	10:00 a.m.	11:58 a.m.
Gold's-Startran Hub	6:09 a.m.	6:39 a.m.	7:09 a.m.	7:39 a.m.	8:09 a.m.	8:37 a.m.	10:39 a.m.	12:37 p.m.
State Capitol/State Office Building			7:15 a.m.	7:45 a.m.	8:15 a.m.	8:43 a.m.	10:45 a.m.	12:43 p.m.
UNL Student Union	6:23 a.m.	6:47 a.m.	7:17 a.m.	7:47 a.m.	7:47 a.m. 8:17 a.m.		10:47 a.m.	12:45 p.m.
UNL Innovation Campus	6:29 a.m.	6:53 a.m.	7:23 a.m.	7:53 a.m.	8:23 a.m.	8:51 a.m.	10:53 a.m.	12:51 p.m.
Eastbound – P.M.				Depart	ures			
UNL Innovation Campus	1:30 p.m.	3:30 p.m.	4:00 p.m.	4:30 p.m.	5:30 p.m.	6:00 p.m.	9:30 p.m.	
UNL Student Union	1:36 p.m.	3:36 p.m.	4:06 p.m.	4:36 p.m.	5:36 p.m.	6:06 p.m.	9:36 p.m.	
Gold's StarTran Hub	1:44 p.m.	3:44 p.m.	4:14 p.m.	4:44 p.m.	5:44 p.m.	6:14 p.m.	9:44 p.m.	
State Capitol/State Office Building	1:50 p.m.	3:50 p.m.	4:20 p.m.	4:50 p.m.	5:50 p.m.	6:20 p.m.	9:50 p.m.	
Nebraska Crossing Mall (P&R)	2:23 p.m.	4:23 p.m.	4:53 p.m.	5:23 p.m.	6:23 p.m.	6:53 p.m.	10:23 p.m.	
City of La Vista Park & Ride (Cabela's)	2:37 p.m.	4:37 p.m.	5:07 p.m.	5:37 p.m.	6:37 p.m.	7:07 p.m.	10:37 p.m.	
Westroads Mall (Park and Ride)	2:47 p.m.	4:47 p.m.	5:17 p.m.	5:47 p.m.	6:47 p.m.	7:17 p.m.	10:47 p.m.	
UNO-70th and Dodge	3:00 p.m.	5:00 p.m.	5:30 p.m.	6:00 p.m.	7:00 p.m.	7:30 p.m.	11:00 p.m.	





Eastbound - P.M.				Departi	ıres			
UNMC-42nd and Dodge	3:07 p.m.	5:07 p.m.	5:37 p.m.	6:07 p.m.	7:07 p.m.	7:37 p.m.	11:07 p.m.	
24th and Douglas	3:12 p.m.	5:12 p.m.	5:42 p.m.	6:12 p.m.	7:12 p.m.	7:42 p.m.	11:12 p.m.	
Amtrak/Intercity Bus Station-ARR	3:23 p.m.	5:23 p.m.	\downarrow	\	7:23 p.m.	\downarrow	11:23 p.m.	
Eppley Airport AR			5:53 p.m.	6:23 p.m.		7:53 p.m.		

9.1.3 U.S. Highway 6 Local Gold Route Both Ways

The original alternatives included this route connecting Omaha and Lincoln via U.S. Highway 6 as a separate service. It is included in the preferred alternative with the following changes:

- A third daily round-trip was added in the mid-day, to allow persons to return home without having to wait until a late afternoon or evening trip.
- The extension to the CHI Health Centers Heart Hospital in Lincoln was eliminated. This route takes
 longer to operate because it has more stops, and the additional time for this extension was deemed
 excessive when the StarTran Route 40 makes this same connection from the Gold's Building stop.
- In Omaha, the route of the preferred alternative makes stops at the Aksarben Transit Center, which
 is near medical offices, and then travels to the Veterans Administration Hospital, then to UNMC
 before heading downtown.
- Trips stop at the Express Arrow/Burlington Trailways Lincoln Bus Depot to allow residents of Gretna, Ashland, Greenwood and Waverly to make intercity bus connections on westbound buses headed for Denver. Similarly, the morning and afternoon trips make connections at the Amtrak/Intercity Bus Station with buses headed for Chicago.

The purpose of the local service is to provide basic mobility for several trip purposes, and so there are stops at shopping and health locations as well as connections to local transit and intercity travel options. Figure 35 shows the Gold Route.

Table 23 lists the proposed stops in the preferred alternative. Table 24 presents a timetable for the Gold Route service, which is planned as weekday service. They are listed in one direction only; the same stops will be used both ways.





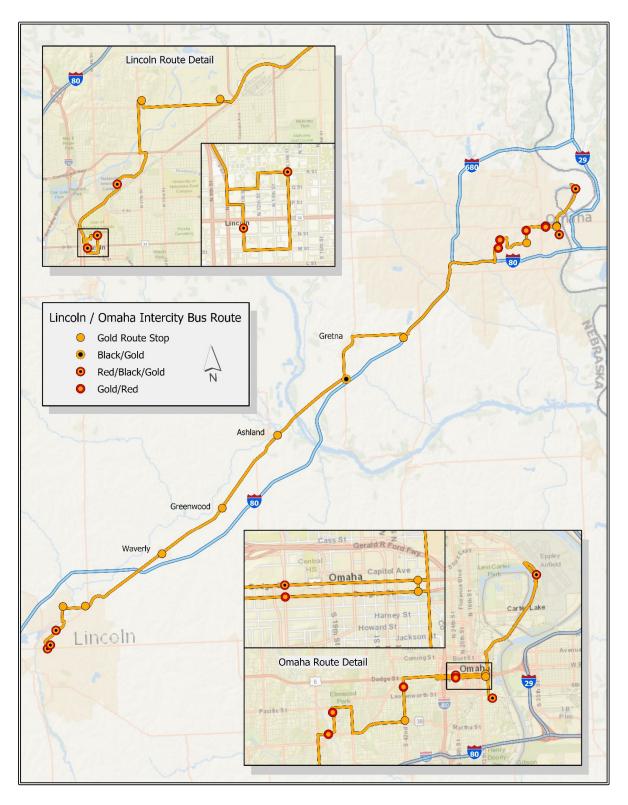


Figure 35. U.S. Highway 6 Local Gold Route and Return Map





Table 23. U.S. Highway 6 Local Gold Route and Return Stops

Stop Location	Purpose	Park and Ride?	Transit Connections	Shared Stop	Comments
Intercity Bus/Amtrak Station	Connections to national network of intercity bus services	No	Burlington Trailways, Express Arrow, Jefferson Lines to Kansas	Red/Black/Gold	Connections to/from intercity carriers to more distant points
24 th and Douglas/Dodge	Creighton University	No	Metro Transit 24, Creighton Shuttle	Red/Black/Gold	
40 th and Dodge	ORBT stop	No	ORBT, Metro 92 and 98	Red/Black/Gold	
42 nd and Dewey	UNMC	No	Metro Transit 3 and 15	Red/Gold	
Veteran's Hospital- Omaha	Medical	No	Metro Transit 3 and 15		
Peter Kiewit Institute, UNO	UNO South Campus	No	UNO Campus Shuttle, NE-Ride	NE-Ride	Engineering School
Aksarben Transit Center	Aksarben Village	No	Metro Transit Routes 18,55,11,15, 13	Red/Gold	Office, medical, higher density residential
Wal-Mart Super Center 11350 Wickersham Blvd, Gretna, NE 68028	Shopping opportunity	No	None		
Nebraska Crossing Outlets	Park and ride opportunity for Gretna area	Yes	None	Black	Nonurbanized area stop
Ashland	Downtown stop at municipal parking	Yes	None		Nonurbanized area stop
Greenwood		Yes	None		Nonurbanized area stop
Waverly		Yes	None		Nonurbanized area stop
Lincoln Bus Depot	Connections to national network of intercity bus services	Yes	StarTran 41 and 48		Connections to/from intercity carriers to more distant points
Wal-Mart Super Center, 4700 N. 27 th St., Lincoln	Shopping opportunity	No	StarTran 41 and 48		
UNL Innovation Campus	UNL Campus, Bus Layover Point	Yes	StarTran Routes 22 and 23	Red/Black	Connections to UNL East Campus
UNL Union	UNL main campus stop	No	StarTran Routes 24 and 25	Red/Black	Connections to UNL East Campus
Gold's Building StarTran hub	Connections with StarTran network, access for downtown residents	No	StarTran Routes 13,27, 40, 41, 42, 44, 46, 49, 51, 52,53, 54, 55 (Downtown Trolley), and 56	Red/Black	Main StarTran transfer point, Downtown Trolley





Table 24. U.S. Highway 6 Local Gold Route Weekdays Timetable and Return

	ound Omaha ops and Depa			Eastbound Lincoln to Omaha Stops and Departures						
Amtrak/Intercity Bus Station-LV	7:00 a.m.	11:30 a.m.	4:30 p.m.	Gold's-StarTran Hub	7:30 a.m.	11:30 a.m.	4:30 p.m.			
11th and Dodge	7:07 a.m.	11:37 a.m.	4:37 p.m.	UNL Student Union	7:30 a.m.	:30 a.m. 11:30 a.m.				
24th and Dodge	7:12 a.m.	11:42 a.m.	4:42 p.m.	UNL Innovation Campus	7:37 a.m.	11:37 a.m.	4:37 p.m.			
UNMC-42nd and Dewey	7:19 a.m.	11:49 a.m.	4:49 p.m.	Walmart Supercenter, 4700 N 27th St., Lincoln	7:46 a.m.	11:46 a.m.	4:46 p.m.			
VA Hospital	7:26 a.m.	11:56 a.m.	4:56 p.m.	Arrow Stage Lines/Superior	7:57 a.m.	11:57 a.m.	4:57 p.m.			
UNO Peter Kiewit Institute	7:39 a.m.	12:09 p.m.	5:09 p.m.	Waverly	8:06 a.m.	12:06 p.m.	5:06 p.m.			
Aksarben Transit Center (68th and Mercy Rd, NW)	7:44 a.m.	12:14 p.m.	5:14 p.m.	Greenwood	8:19 a.m.	12:19 p.m.	5:19 p.m.			
Walmart Supercenter 11350 Wickersham Blvd, Gretna (at 370)	8:03 a.m.	12:33 p.m.	5:33 p.m.	Ashland (Town Center)	8:27 a.m.	12:27 p.m.	5:27 p.m.			
Gretna	8:09 a.m.	12:39 p.m.	5:39 p.m.	Nebraska Crossing Park and Ride	8:37 a.m.	12:37 p.m.	5:37 p.m.			
Nebraska Crossing Park and Ride	8:10 a.m.	12:40 p.m.	5:40 p.m.	Gretna	8:50 a.m.	12:50 p.m.	5:50 p.m.			
Ashland (Town Center)	8:23 a.m.	12:53 p.m.	5:53 p.m.	Walmart at 370	8:57 a.m.	12:57 p.m.	5:57 p.m.			
Greenwood	8:33 a.m.	1:03 p.m.	6:03 p.m.	Aksarben Transit Center (68th and Mercy Rd, NW)	8:56 a.m.	12:56 p.m.	5:56 p.m.			
Waverly	8:41 a.m.	1:11 p.m.	6:11 p.m.	UNO Peter Kiewit Institute	9:15 a.m.	1:15 p.m.	6:15 p.m.			
Arrow Stage Lines/Superior	8:54 a.m.	1:24 p.m.	6:24 p.m.	VA Hospital	9:20 a.m.	1:20 p.m.	6:20 p.m.			
Walmart Supercenter, 4700 N 27th St., Lincoln	9:03 AM	1:33 PM	6:33 PM	UNMC-42nd and Dodge	9:33 a.m.	1:33 p.m.	6:33 p.m.			
UNL Innovation Campus	9:14 AM	1:44 PM	6:44 PM	24th and Douglas	9:40 a.m.	1:40 p.m.	6:40 p.m.			





	ound Omaha ops and Depa			Eastbound Lincoln to Omaha Stops and Departures					
UNL Student Union	9:23 AM	1:53 PM	6:53 PM	11th and Douglas	9:47 a.m. 1:47 p.m.		6:47 p.m.		
Gold's-StarTran Hub	9:30 AM	2:00 PM	7:00 PM	Amtrak/Intercity Bus Station-ARR	9:52 a.m.	1:52 p.m.	6:52 p.m.		

Table 25 shows connecting intercity bus service with the time of arrival or departure to/from Omaha, the carrier and the primary end-point. Strong public input for service to Eppley from Lincoln led to the addition of an Eppley stop on trips that have no intercity bus connections. The travel time to Eppley from 10th and Dodge is a minute or two longer than the travel time from that location to the Amtrak (future intercity bus) station. Not all trips go to Eppley, and it will require good information systems to make sure that users are aware of the schedules serving the airport.

Table 25. Lincoln and Omaha Connecting Intercity Bus Service

	Arrival or Departure	Time of Arrival or Departure	Origination	Destination
Burlington Trailways – Lincoln Ne				
Lincoln Bus Depot	Arrival	4:40 a.m.	Denver, CO	Omaha, NE
	Departure	10:25 p.m.		Denver, CO
Burlington Trailways - Omaha, Ne)			
Amtrak/Intercity Bus Stations	Arrival	5:40 a.m.		
	Departure	6:15 a.m.		Chicago, IL
	Arrival	8:00 a.m.	Chicago, IL	
	Departure	8:45 p.m.		Chicago, IL
	Departure	12:10 p.m.		Chicago, IL
	Arrival	8:20 p.m.	Chicago. IL	
	Departure	9:15 p.m.		Denver, CO
	Arrival	1:30 a.m.	Chicago, IL	
Express Arrow – Lincoln, NE				
Lincoln Bus Depot	Arrival	6:55 p.m.		
	Arrival	9:15 a.m.		Denver, CO
Express Arrow – Omaha, NE				
Amtrak/Intercity Bus Stations	Departure	8:30 a.m.		Norfolk, NE
	Arrival	7:55 p.m.		
	Departure	8:15 a.m.		Denver, CO
	Arrival	2:30 p.m.	Norfolk, NE	





	Arrival or Departure	Time of Arrival or Departure	Origination	Destination					
Jefferson Lines									
Amtrak/Intercity Bus Stations	Departure	6:15 a.m.		Sioux City, IA					
	Arrival	4:05 p.m.	Kansas City, MO						
	Arrival	5:45 a.m.	Kansas City, MO						
	Departure	4:25 p.m.		Sioux City, IA					
	Departure	4:45 p.m.		Kansas City, MO					
	Departure	12:01 a.m.		Kansas City, MO					
Navigator – Omaha, NE									
Eppley Airport	Arrival	12:25 p.m.							
	Departure	2:00 p.m.							
Navigator – Lincoln, NE									
Lincoln Bus Depot	Arrival	3:15 p.m.	Omaha, NE						
Amtrak – Omaha, NE									
Amtrak/Intercity Bus Stations	Departure	11:05 p.m.		Lincoln, NE					
·	Arrival	4:59 a.m.	Lincoln, NE						
Amtrak – Lincoln, NE									
Downtown Lincoln	Arrive	12:08 a.m.	Omaha, NE						
	Departure	3:26 a.m.		Omaha, NE					

9.2 Estimated Operating Costs - Preferred Alternative

Based on the preferred alternative routes and timetables presented above, the estimated annual operating costs are approximately \$2.5 million, not including fuel, project management or marketing. Table 26 presents the estimated costs by route, based on an operating cost of \$100 per revenue-hour. This figure is based on recent experience for similar service on the I-380 Express, and it includes operation of the service (turn-key) with the vehicles provided by the contractor. It does not include fuel, which is separated to avoid having the contractor having to build in a risk premium for possible volatility in fuel prices.

In addition to these costs, project oversight and management costs from the NDOT side would be additional, and there should be a significant marketing budget for such a new service in the region. These costs could vary significantly depending on the bid price per revenue-hour, which could be influenced by the length of the term (vehicle-lease costs will be lower for longer contracts), the amount of dead-head mileage that a contractor would have from their operating facilities, etc. A potential strategy that might reduce the local costs would be to use FTA funding for vehicle leasing, allowing 80 percent federal funding under the capital cost of leasing guidelines.





Table 26. Estimated Annual Operating Costs

Route:	Red Weekday			Red Saturday	Black Saturday	Total
Daily Revenue- Hours ⁽¹⁾	40.25	32	17.94	21.62	18.24	
Annual Days of Service	254	254	254	51	51	
Annual Revenue- Hours	10,224	8,128	4,557	1,103	930	24,941
Estimated Cost Per Hour	\$100	\$100	\$100	\$100	\$100	
Annual Operating Cost	\$1,022,350	\$812,800	\$455,676	\$110,262	\$93,024	\$2,494,112

⁽¹⁾ Based on Preferred Alternative timetables, plus 15 percent for recovery time.

Fuel costs are estimated to be in the range of \$450,00 to \$500,000, based on recent prices for diesel fuel in Omaha and estimated miles per gallon of 3.2, which is a conservative (high) figure taken from the FTA Altoona test of an MCI D-Series commuter bus. Table 27 presents this estimate. Again, fuel prices are volatile, and vehicle fuel mileage may be higher. The outreach process included significant public interest in alternative fuels, particularly electric buses. During the course of the study, the first announcements of electric commuter buses were made by manufacturers. Based on the initial information provided by the manufacturers, these initial models will not have the combination of range and recharging time needed for these timetables, and the capital cost of the vehicles is likely to be significantly higher than clean diesel. Contract bidders may determine other alternative fuels such as biodiesel or natural gas are cost-effective, but for budget purposes for start-up and the initial years of the project, it is assumed the buses would be clean diesel. The project would still have significant environmental benefits—with an average passenger load of 25 and an average trip length of 60 miles, the passenger-miles per gallon (at 3.2 miles per gallon) would be 80, approximately four times that of an average single-occupant auto (at 20 miles per gallon).

Table 27. Estimated Cost of Fuel for Preferred Alternative

Route:	Round- Trip Miles	Days	No. of Trips	Revenue- Miles	MPG 11		Price per Gallon	Total Cost
Red	99	254	7.5	188,595	3.2	58,936	\$2.75	\$ 162,074
Black	102	254	7.5	194,310	3.2	60,722	\$2.75	\$ 166,985
Gold	120	254	3	91,440	3.2	28,575	\$2.75	\$ 78,581
Red Sat.	99	52	6.5	33,462	3.2	10,457	\$2.75	\$ 28,756
Black Sat.	102	52	6.5	34,476	3.2	10,774	\$2.75	\$ 29,628
						169,463		\$ 466,024





9.3 Summary

The preferred alternative includes three routes, two using I-80 and one on U.S. Highway 6. One of the I-80 routes is designed to service Lincoln residents going to Omaha destinations, the other route is to service Omaha residents going to Lincoln destinations. The routes serve different stops in order that the origin cities have park and ride opportunities and no travel time is used deviating to park and ride lots in the destination city. Both routes serve areas of employment density and major educational facilities, but they are designed to provide connections to the national network of intercity bus services, local public transit hubs, and the Omaha airport, with stops serving the non-urbanized area between the two urbanized areas. In addition, a third route provides connections directly from the towns in the non-urbanized area to all key destinations, with the same linkages to other modes in each city. Together these routes provide a connected regional transit network that can be used for a variety of trip purposes. The estimated annual contract operating cost of these routes is \$2.5 million, plus \$0.5 million for fuel. The next chapter will address additional cost aspects such as project oversight, marketing, capital costs and funding.





10. Funding/Implementation Plan

A detailed description of the Preferred Alternative for the Lincoln to Omaha intercity bus service was presented in Chapter 9 of this report, along with the estimated annual operating expenses for the program, proposed bus routes, stops, and schedules. A summary of the Lincoln to Omaha intercity bus service program is listed below.

Table 28. Lincoln to Omaha Intercity Bus Services - Program Summary

Program Items	Summary
GOAL – Lincoln to Omaha Intercity Bus Service	Enhance existing intercity bus network and serve the needs of the urban and rural communities along the corridor. In addition, continue to build the NDOT statewide intercity bus network.
NDOT Role	Oversight, management, quality assurance, and planning for Lincoln to Omaha service.
Operator	Contract operator via NDOT procurement process.
Financing	Federal, state, local funding and fare revenues.
Services	Three routes between Lincoln to Omaha, connecting the two largest transit agencies in the state. Provide essential services to rural communities with transit connections into the metro areas. Monday through Friday services, with Special Event service planned for Saturdays.
Technology	Real-time arrival/departure information, social media notifications, and online ticket payment integration.
Proposed Fare Structure	\$6.00 base one-way cash fare; discounted passes available. Rural community connections \$3.00 base cash fare.
Earliest Go Live Date	If funding is secured from all partners in 2020, proposed Go Live date is Fall 2021.
Bus Amenities	Wheelchair accessible, Wi-Fi, bicycle racks, cup holders, charging ports, real-time trip data.
Name of Service	Determined in next phase of project as part of marketing plan.
Target Markets	Essential trips for both urban and rural areas, medical, shopping, services, education/training, employment, commuters, and recreation.
Corridor Characteristics	Over 23,000 existing commuter trips in corridor. Population projections for three primary counties – Lancaster, Douglas, and Sarpy – to be over 1M by 2050, from 770,000 today.
Proposed Number of Vehicles	Nine peak vehicles plus two spare buses.

10.1 Revenues

Securing funds for the future intercity bus services is the next project step and will continue to evolve through the end of this year for the mobility management team. All public transit systems across the United





States are funded through a combination of programs and revenue sources, such as state grants, passenger fares, advertisement revenues, local contributions, and most systems typically rely on federal grants to help cover a significant portion of operating and capital costs. This chapter provides a high-level funding plan for Lincoln to Omaha intercity bus service.

The revenue categories for the funding plan are Federal Transit Administration Section 5311, State funding, and local funding. Building local funding partnerships will be the next steps for this project. Fares are a guaranteed revenue source for the program. Initial fare estimates for the first year are low, with expected growth over the following years until the system matures to full potential. Table 29 provides the proposed funding program.

Estimated Total of first Year 1 Year 2 Year 3 Year 4 **Costs** 3 Years Operating \$ 3,000,000 \$3,000,000 \$ 3,000,000 \$ 9,000,000 \$ 3,000,000 Capital \$ 1,500,000 \$ 1,500,000 \$ 0.00 \$3,000,000 0.00 500,000 \$ 500.000 Oversight 500,000 \$ 1,500,000 500,000 \$ 5,000,000 \$ 5,000,000 \$3,500,000 \$13,500,000 \$ 3,500,000 **Total Cost** Revenues Federal \$7,250,000 \$ 2,900,000 \$ 2,850,000 \$ 1,500,000 \$ 1,500,000 Local/State \$ 2,000,000 \$ 1,950,000 \$ 1,500,000 \$5,450,000 \$ 1,500,000 Fares \$ 100,000 \$ 200,000 \$ 500,000 \$ 800,000 500,000 Total \$ 5,000,000 \$ 5,000,000 \$ 3,500,000 \$ 13,500,000 \$ 3,500,000

Table 29. Lincoln to Omaha Intercity Bus Funding Plan

Funding Plan Notes

- Operating costs include the cost of contracted services, as detailed in the previous chapter and the
 estimated annual cost of fuel. Operating costs also assume a turn-key Go Live, where the
 contractor will provide the vehicles, either by lease or ownership. The cost per hour is estimated at
 \$100 per revenue hour, which includes the lease of a vehicle.
- Capital costs include bus stop improvements to ensure accessibility, bus wraps, potential hardware/software, etc. Vehicles are not included.
- Oversight includes NDOT management, planning, report compliance, marketing, and quality assurance for the intercity bus service.

10.2 Implementation Plan

An Implementation Plan was prepared for the future Lincoln to Omaha Intercity Bus Service. The Plan provides a roadmap for the project team to continue the momentum from this study process and move into the next phase of the project. In addition, the Implementation Plan sets the stage for the next phases of the project to secure funding and begin the process of coordination with local partners for services, bus stop coordination, and potential funding.





Table 30. Implementation Plan

No.	Novt Stone					Year 202	.0			
NO.	Next Steps	April	May	June	July	Aug	Sept.	Oct.	Nov.	Dec.
1	Finalize Study									
2	Outreach Local Partners									
3	Update RFP Providers									
4	Funding Commitments									
5	Bus Stops Detail Analysis									
6	Bus Stop Partners									
7	Marketing Plan-Name, Logo, Colors, Etc.									
8	RFP Out for Bid/Award									
9	Bus Stop Improvements									
10	Final Operational Plan									
11	Final Capital Plan									
12	Final Organization/Oversight Plan									
13	Go Live									

No.	Novt Stone						Year	2021					
NO.	Next Steps	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
1	Finalize Study												
2	Outreach Local Partners												
3	Update RFP Providers												
4	Funding Commitments												
5	Bus Stops Detail Analysis												
6	Bus Stop Partners												
7	Marketing Plan-Name, Logo, Colors, Etc.												
8	RFP Out for Bid/Award												
9	Bus Stop Improvements												
10	Final Operational Plan												
11	Final Capital Plan												
12	Final Organization/Oversight Plan												
13	Go Live												

